ADDENDUM 1

	Date:	4-10-2003			
	Weather:	Cloudy, Windy, 40s			
	Observer:	Eric Rogge			
Activities:					
	Site Preparat	tion		Suction Pipe Installation	
	Manhole Inst		X	Water Discharge to Treatmen	t Plant
X	Trench Cons	truction		Other	
	Soil Characte	erization		Other	
	_ Soil Disposal				
• Ac	pes were cut wi	10 feet. Found suction line	in the lines wa	on line for EW-11. Shut down t as allowed to drain into the trencling.	
• In • St tre	one was placed enchbox is advar imped water from	ection of perforated pipe and	ther than requent	nired because the stone has been	settling when the
					•
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Visito	rs:				

ADDENDUM 1

Cliff Brock Art Miekens Yvonne Stillis Creianton Richardson	Foreman Foreman Operating Engineer Operating Engineer Skilled Laborer Skilled Laborer	CAT 966G Loader CAT 330L Excavator 3 Trench Boxes 2 20,000 gal. Frac Tanks Diesel Generator	Diesel Air Compressor
Harold Bohl Cliff Brock Art Miekens Yvonne Stillis Creianton Richardson	Foreman Operating Engineer Operating Engineer Skilled Laborer	CAT 330L Excavator 3 Trench Boxes 2 20,000 gal. Frac Tanks	Diesel Air Compressor
Harold Bohl Cliff Brock Art Miekens Yvonne Stillis Creianton Richardson bcontractors Crew	Operating Engineer Operating Engineer Skilled Laborer	3 Trench Boxes 2 20,000 gal. Frac Tanks	
Art Miekens Yvonne Stillis Creianton Richardson ibcontractors	Operating Engineer Skilled Laborer	2 20,000 gal. Frac Tanks	
Yvonne Stillis Creianton Richardson bcontractors	Skilled Laborer		
Creianton Richardson		Diesel Generator	
ubcontractors	Skilled Laborer		
CIEW		Equipment	
		Equipment	
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Attachments [sketches, t	test data, other	· · · · · · · · · · · · · · · · · · ·	
December 1	- d Coldwell COA Denwee	omtotivo	
-	nd Caldwell CQA Repres	entative	
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En	in Deggl	(signature)	
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Reviewed by:	<(in out	(signature)	

ADDENDUM 1

Date:	4-14-03			
Weather:	Sunny, 50s			
Observer:	Eric Rogge			
Activities:				
Site Preparat	ion		Suction Pipe Installation	
Manhole Inst		X	Water Discharge to Treatment Plant	
X Trench Cons	truction		Other	
X Soil Characte	erization		Other	
Soil Disposal				
overflow. Maxy p Began pumping from pumping and the C Placed 4-foot high trenchbox as an are falling into the trench advanced trench adrum was placed to Found suction and Installed 10-foot see	on 4-13-03 to dewater the trench. umped water to frac tanks from 3 ac tanks to treatment plant first to W separator overflowed. In by 16-foot long trenchbox next anchor. Trench will be several frach. Indicate the solution of the side in the soil stockpile are air suction lines to EW-12. Line ection of perforated pipe and requirements.	pm to 3 am. thing in the tt to monit eet away f iece of a d a until it is s were cut nired grade	toring well 14 (MW-14). Tied monitoring from the well and there were concerns of drum filled with solid and crystalline products decided what to do with it.	well to the well act. The
Visitors:				

ADDENDUM 1

ontractor's Resources			
Crew: Maxymillian Teo	chnologies	Equipment	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Harold Bohl	Foreman	CAT 330L Excavator	-
Cliff Brock	Operating Engineer	3 Trench Boxes	
Art Miekens	Operating Engineer	2 20,000 gal. Frac Tanks	
Yvonne Stillis	Skilled Laborer	Diesel Generator	
Creianton Richardson	Skilled Laborer		
ubcontractors			
Crew		Equipment	
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Attachments [sketches,	test data, other]		
			
conound have Duowin or	nd Coldwell COA Bonwoo	ontotivo	
repared by: Brown a	nd Caldwell CQA Repres	entative	
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	nd Caldwell CQA Repres	entative (signature)	
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ADDENDUM 1

Date:	4-15-03	
Weather:	Sunny, 60s	
Observer:	Eric Rogge	
Activities:	• .	
Activities: Site Preparati	ion	Suction Pipe Installation
Manhole Inst		X Water Discharge to Treatment Plant
X Trench Const		Other
Soil Characte		Other
Soil Disposal		
Description of Activities & O Pumped remainder	Observations: of 2 nd frac tank to the treatment	plant.
A steel plate was	driven into the ground between	n MW-14 and the trench to prevent soil from caving into the
 and air suction line previously found defection. Advanced trench leads backfill. Pumping water in soft, wet ground. Here is soft to be sof	es. Found half of a crushed dr lrum pieces. box 10 feet. Installed 10-foot small puddles in front of soil ste By pumping the puddles dry, Ma	ir suction lines to EW-10 and EW-13. Cut and capped suction um and several pieces of drums, placed in soil stockpile with section of perforated pipe and required graded filter stone ockpile area to the north. The equipment is leaving ruts in the axy will make the ground more firm. The equipment is leaving ruts in the equipment out the soil and decrease the weight.

ADDENDUM 1

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

<u>Crew:</u> Maxymillian Teo	chnologies	Equipment	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Harold Bohl	Foreman	 	
Cliff Brock	Operating Engineer	3 Trench Boxes	
Art Miekens	Operating Engineer	2 20,000 gal. Frac Tanks	,
Yvonne Stillis	Skilled Laborer	Diesel Generator	
Creianton Richardson	Skilled Laborer		
	-1	<u>-:</u>	
bcontractors			
Crew		Equipment	
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Attachments [sketches,	test data other]		
Attachments sketches,	tost datas, other j	·	
			
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repared by: Brown a	nd Caldwell CQA Represe	ntative	
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ADDENDUM 1

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Weather		
Observer	: Eric Rogge	
ivities:	•	
Site Prepar	ation	Suction Pipe Installation
Manhole Ir		Water Discharge to Treatment Plant
X Trench Con	•	Other
Soil Charac		Other
Soil Dispos	al	
,		
ription of Activities &	Observations:	
•		
and air suction p 12. Turned the around the pipes	treatment plant on and listened for	at and installed new 2-inch PVC pipe, reconnecting EW-11 or leaks around the new joints. Spread 6-inches of type 1
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Visitors:		•

ADDENDUM :

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

Crew: Maxymillian Tecl	hnologies	Equipment	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Harold Bohl	Foreman	CAT 330L Excavator	
Cliff Brock	Operating Engineer	3 Trench Boxes	
Art Miekens	Operating Engineer	2 20,000 gal. Frac Tanks	
Yvonne Stillis	Skilled Laborer	Diesel Generator	
Creianton Richardson	Skilled Laborer		
In a surface of a sur		<u> </u>	
bcontractors Crew		Equipment	
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Attachments [sketches, to	est data, other]	** <u>*</u>	-
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Reviewed by:

ADDENDUM 1

	Nw1 Date:	4-17-03			
	Weather:	Cloudy, 40s			
	Observer:	Eric Rogge			
Activities:					
euviues.	Site Preparat	tion	•	Suction Pipe Installation	
	Manhole Inst		X	Water Discharge to Treatment Plant	
<u>X</u>	Trench Cons			Other	
	Soil Characte			Other	
	Soil Disposal			•	
•	collapsing of the tr Advanced trenchbor Pumped water from Placed and compact Unable to connect	rench wall. ox 10 feet. Installed 10-fee m frac tanks to treatment pl cted select fill and structura	et of perforated pant. If fill in the trendenently or temp	of trench wall. Will leave pieces in place to prevoipe and the required graded filter stone backfill. The behind the trenchbox. The pipes were behind	

ADDENDUM 1

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

Crew: Maxymillian Tecl	hnologies	Equipment	· · · · · · · · · · · · · · · · · · ·
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Harold Bohl	Foreman	CAT 330L Excavator	
Cliff Brock	Operating Engineer	3 Trench Boxes	
Art Miekens	Operating Engineer	2 20,000 gal. Frac Tanks	
Yvonne Stillis	Skilled Laborer	Diesel Generator	
Creianton Richardson	Skilled Laborer		
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contractors Crew	· · · · · · · · · · · · · · · · · · ·	Equipment	
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ttachments [sketches, to	est data, other]	17	
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mand has Due	d Coldmall COA Dominion	4a.ki	
epared by: Brown an	d Caldwell CQA Represen	tative	
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ADDENDUM 1

Date:	4-21-03	T:				 ·,
Weather:	Cloudy, 60s					. ·
Observer:	Eric Rogge					
	•	• •		•		•
vities: Site Prepara	tion			Suction Pipe In	stallation	
Manhole Ins				Water Discharg		t Plant
X Trench Cons				Other		
Soil Charact		•		Other		
Soil Disposal		ŧ				
		*	•	•	•	
	Ob	.' •				
cription of Activities &	Observations:	•		٠.	·	
stockpile. • Installed a 20-foot	t section of perfora				e backfill. Pipe	e ends 3-feet fa
than required on the					in the treatment	t plant broke, N
than required on the pumped from fraction	he engineering dra- tanks to treatment he treatment plant	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, N
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, N
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M
than required on the pumped from fraction	tanks to treatment	t plant in the m	orning. The	e rope skimmer i	in the treatment	t plant broke, M

ADDENDUM 1

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

Crew: Maxymillian Tec	hnologies	Equipment			
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor		
Cliff Brock	Operating Engineer	CAT 330L Excavator			
Art Miekens	Operating Engineer	3 Trench Boxes			
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks			
Creianton Richardson	Skilled Laborer	Diesel Generator			
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ıbcontractors					
Crew	w. C	Equipment			
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Attachments [sketches, to	est data, other]				
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repared by: Brown an	nd Caldwell CQA Represen	tative			

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Reviewed by:

ADDENDUM 1

Date:	4-22-03							
Weather:	Cloudy, 60s							
Observer:	Eric Rogge			· .			<u> </u>	
vities:	٠	•						
Site Preparati	ion			Suction P	ipe Instal	lation		
Manhole Inst				Water Di			nt Plant	
X Trench Const				Other	•	·		<u>.</u>
Soil Characte	rization			Other			, , , ,	-
Soil Disposal	• ' '							
cription of Activities & O	bservations:			•				
<u>-</u>		<u> </u>				,	_	
 Completed placing 		ne backfill in 1	the final 20-	foot section	of the tren	nch.		
 Trench sidewalls un 								
 Spread and compa 				le the trend	hboxes.	The trend	chboxes w	ere li
progressively as the					_			
 The steel plate that 								
gunnorting the tren	ch sidewalls in	the FW/ line :	ntan mata la	ft. If the p	lates were	moved, the	he falling	soil co
		me by mie	area were re	-				
break the EW lines	•			-				
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break the EW lines	•			-				
break the EW lines	•							
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break the EW lines	•							

ADDENDUM 1

Crew: Maxymillian Te	chnologies	Equipment	
Ot		CAT 966G Loader	Discal Air Commesses
Chester Trzcinski	Foreman		Diesel Air Compressor
Cliff Brock	Operating Engineer	CAT 330L Excavator	
Art Miekens	Operating Engineer	3 Trench Boxes	
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks	
Creianton Richardson	Skilled Laborer	Diesel Generator	
bcontractors			
Crew		Equipment	
 			
			
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Attachments [sketches,	test data, other]		
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repared by: Brown a	nd Caldwell CQA Repres	entative	
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eviewed by:		(signature)	
eviewed by:		(SIEMALINE)	

ADDENDUM 1

Date:	4-23-03		
Weather:			_
Observer:	Eric Rogge		
ities:			
Site Preparat	ion	Suction Pipe Installation	
Manhole Inst	allation	Water Discharge to Treatment P	
X Trench Cons		Other	
Soil Characte	rization	Other	
X Soil Disposal			
 soil to G.R.O.W.S Moved trenchboxe Gary Sheehan and Shut treatment sys 	., Inc. in Morrisville, PA. es to the paved area to begin di Bob Crane on-site repairing the stem down and opened caps o	on the suction and air suction lines for EW-10 ar	off-site. nd 13. Allov
around them.Vacuum at treatmeMeasured pieces o	ent plant steady at 12 inHG. W	and air suction lines with new 2" PVC pipe and 6 Vill check tomorrow and see if the number is the s m the trench. There is approximately 22 CY of c	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. W	Vill check tomorrow and see if the number is the s	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We for concrete debris removed from the form of t	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We for concrete debris removed from the form of t	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We for concrete debris removed from the form of t	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We for concrete debris removed from the form of t	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4
 around them. Vacuum at treatment Measured pieces of CY of concrete over pieces. 	ent plant steady at 12 inHG. We f concrete debris removed from the form of the concrete debris removed from the form of the concrete was a supplied to the	Vill check tomorrow and see if the number is the sem the trench. There is approximately 22 CY of co	same. oncrete and 4

ADDENDUM 1

Crew: Maxymillian Te	chnologies	Equipment	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Cliff Brock	Operating Engineer	CAT 330L Excavator	
Art Miekens	Operating Engineer	3 Trench Boxes	
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks	
Creianton Richardson		Diesel Generator	
ibcontractors Crew		Equipment	
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Attachments [sketches,	test data, other]		
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ADDENDUM 1

Weather:					_
					<u>.</u>
Observer:	Eric Rogge				-
vities:					
Site Prepara		-	Suction Pipe I		_
Manhole Ins		-		rge to Treatment P	
X Trench Cons		-	Other		_
Soil Disposal		-	Other	*	
 •					
Backhoe with a jattrench. The rentalPumping water from	o be normal. There is ackhammer attachmer attachmer l company provided at om the frac tanks to the Kimberly Scarborou.	nt was rented to n operator for the e treatment pla		on and air suction in the concrete debris	mes. pulled fron
			Spread and compacted	l structural fill arour	nd and above
EW lines.	9 -) F		<u>*</u> .		
 Attached grading ! 	bucket to excavator.				
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Visitors:					

ADDENDUM 1

Crew: Maxymillian Tec	chnologies	Equipment	
			D: 14: 0
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Cliff Brock	Operating Engineer	CAT 330L Excavator	
Art Miekens	Operating Engineer	1 Trench Box	
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks	
Creianton Richardson	Skilled Laborer	Diesel Generator	
ıbcontractors			
Crew		Equipment	
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Attachments [sketches,	test data, other]		
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-	nd Caldwell CQA Repres	entative	
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	- Company	(Signature)	
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ADDENDUM 1

	Date:	4-28-03					 ·
	Weather:	Sunny					
	Observer:	Eric Rogge	<u> </u>	·			_ _
ies:							•
103.	Site Preparat	ion			ction Pipe In		
	Manhole Inst			w	ater Dischar	ge to Treatmen	ıt Plant
	Trench Cons	truction					
	Soil Characte			0	ther		
<u>X</u>	Soil Disposal						
		,			` '	•	
ntion of	Activities & (Observation	ıs:				
_ ,							
• Loa	ding out soil st	tockpiles into	o trucks using the	excavator.	-		
	ng calcium chl					•	•
• 311	ruckloads of so	oil were tran	sported to Clean E	Earth in Philadelp	hia.	•	
• Bac	r filters were fi	illed with nr	oduct, the product	t was poured into	the O/W se	parator in the tr	eatment plant
	ers were then re		oduci, mo produc	t was poured ma	,	F	•
11110	as were men re	piaced.			•		
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ADDENDUM 1

Crew: Maxymillian Tee	chnologies	<u>Equipment</u>	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Cliff Brock	Operating Engineer	CAT 330L Excavator	2.000.1
Art Miekens	Operating Engineer	1 Trench Box	· · · · · · · · · · · · · · · · · · ·
	Skilled Laborer	2 20,000 gal. Frac Tanks	
Yvonne Stillis		Diesel Generator	
Creianton Richardson	Skilled Laborer	Diesel Generator	
bcontractors			1
Crew		<u>Equipment</u>	
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Attachments [sketches,	test data, other]		
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repared by: Brown a	nd Caldwell CQA Repres	antativa	
repareu by: Brown a	nu Caluwen CQA Repres	·	
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<u>UM</u>	& S. Cogge	(signature)	
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ADDENDUM 1

Date:	4-29-03		
Weather:	Cloudy, 60s => Rain	·	
Observer:	Eric Rogge		
vities:			
Site Preparat	ion -	Suction Pipe Installa	
Manhole Inst		Water Discharge to	
Trench Const			<u> </u>
X Soil Characte		Other	
X Soil Disposal	•		
•	e tra	٠.	
cription of Activities & C)bservations:		
 Chet is at Jury duty Loading soil from 	y in the morning. Art was le both stockpile areas to truck	s. The front-end loader was moved i	nto the soil stockpile area
will remain inside	to prevent stained from being	g tracked on the site.	•
As soil is loaded to	trucks the poly underneath	is ripped. Not feasible to try to load	with out hitting the poly.
loader will be used	I to scrape the ground and re-	move any stained soil.	•
 31 loads of soil we 	ere transported to Clean Eartl	ı in Philadelphia.	
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Visitors:		***	

ADDENDUM 1

<u>Crew:</u> Maxymillian Te	chnologies	Equipment	
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor
Cliff Brock	Operating Engineer	CAT 330L Excavator	
Art Miekens	Operating Engineer	1 Trench Box	
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks	
Creianton Richardson	Skilled Laborer	Diesel Generator	
bcontractors			
Crew		Equipment	
			
Attachments [sketches,	test data, other]		
	and Caldwell CQA Repres	sentative	
	and Caldwell CQA Repres	sentative (signature)	

ADDENDUM 1

Weather: Sunn	y, 60s		
Observer: Eric l	Rogge		
ties:			
Site Preparation	• ;	Suction Pipe Installation	
Manhole Installation		Water Discharge to Treatment Plant	
Trench Constructio		Other Other	-
X Soil Characterization Soil Disposal) <u>n</u>		-
bon Disposit	•		
	1	•	
ption of Activities & Observ	ations:		
Continued loading soil to	trucks.		
• Scraped stained soil from	old soil stockpile area.	a. Moved scraped soil/mud from area next to trench	to o
stockpile area. Soil will f25 loads of soil were tran	ill in any areas were exis	isting soil was removed during scraping.	
•. 25 loads of soft were train	sported to Clean Earth in	ii r madeipina.	
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ADDENDUM 1

Cliff Brock C Art Miekens C Yvonne Stillis S	oreman	Equipment CAT 966G Loader	
Cliff Brock Art Miekens Yvonne Stillis Creianton Richardson Subcontractors		CAT 066G Loader	
Art Miekens C Yvonne Stillis S Creianton Richardson S ubcontractors		CAT 9000 Loader	Diesel Air Compressor
Yvonne Stillis S Creianton Richardson S ubcontractors	Operating Engineer	CAT 330L Excavator	
Creianton Richardson S	Operating Engineer	1 Trench Box	
ıbcontractors	Skilled Laborer	2 20,000 gal. Frac Tanks	
	Skilled Laborer	Diesel Generator	
	L.		

	r 1	Equipment	
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Attachments [sketches, test	data, other]	<u> </u>	
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repared by: Brown and (Caldwell CQA Represen	tative	
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eviewed by:	Conjon	(signature)	

ADDENDUM 1

]	Date: 5-1-03		
Wea	ther: Cloudy, 60s		
Obse	erver: Eric Rogge		
A -4!!4!			
Activities:	eparation	Suction Pipe Installation	
	eparation de Installation	Water Discharge to Treatn	nent Plant
	Construction	Other	
	naracterization	Other	
Soil Dis	sposal		
	•	^	
Description of Activitie	es & Observations:		
The facility:	is not accepting waste today. No	soil will be transported to Clean Earth in Phila	adelphia.
		ew soil stockpile was built in the area of the p	
Remaining of	contaminated soil was moved to the	nis soil stockpile.	
		h the existing ground were scraped and the scr	rapings were moved to
the soil stock			
• Weekly conf			
• This will be	Cliff's last day on-site. Only one	operator will be needed for the remainder of	the project.
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Visitors:			

ADDENDUM 1

Chester Trzcinski Cliff Brock Art Miekens	Foreman Operating Engineer	CAT 966G Loader	12: 11: 0
Cliff Brock Art Miekens			Diesel Air Compressor
		CAT 330L Excavator	
	Operating Engineer	1 Trench Box	
Yvonne Stillis	Skilled Laborer	2 20,000 gal. Frac Tanks	
Creianton Richardson	Skilled Laborer	Diesel Generator	
hoontrootous			
bcontractors Crew		Equipment	
	1		
Attachments [sketches, t	test data_other]		
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ADDENDUM 1

Date:	5-5-03			
Weather:	Rain, 40s		- · · · · · · · · · · · · · · · · · · ·	
Observer:	Eric Rogge			
ivities:	**	'		
Site Preparat	ion	Suction Pipe		
Manhole Inst	allation		arge to Treatment Plant	
Trench Cons		X Other: Grad	ing	
Soil Characte		Other		
Soil Disposal				
ription of Activities & C)bservations:			
			· · · · · · · · · · · · · · · · · · ·	
 A backhoe was bro 	ought on-site and will be used	to dig the suction header tre	ich.	_1
	ped topsoil from the area nea	ar the trench in the soil sto	ckpile area. Stones and roo	cks v
removed from the	topsoil.			
 Rye seed was spre 	ad on soil stockpile area. A lay	yer of hay was also spread a	bove the seeds on the area.	
 The excavator was 	used to remove lose soil from	the ground in the suction he	ader trench area.	
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Visitors:				

ADDENDUM

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

<u>Crew: Maxymillian Te</u>	chnologies	Equipment		
Chester Trzcinski	Foreman	CAT 966G Loader	Diesel Air Compressor	
Art Miekens	Operating Engineer	CAT 330L Excavator		
· · · · · · · · · · · · · · · · · · ·		1 Trench Box		
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks		
	i	Diesel Generator	1	
		Case backhoe		
beontractors		1-	·	
Crew	<u> </u>	Equipment	·	
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Attachments [sketches,	test data, other			
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epared by: Brown a	nd Caldwell CQA Represen	tative		
e.	is S. Bagge	(signature)	•	

(signature)

ADDENDUM 1

	d Date:	5-6-03			
	Weather:	Overcast, 40s			
	Observer:	Eric Rogge			
Activitie	s:				
	Site Preparat	ion	X		
	Manhole Inst	allation		Water Discharge to Treatment Plant	
_	Trench Cons	truction		Other	
_	Son Characte	FIZACION		Other	_
_	Soil Disposal				
Descript	ion of Activities & C)bservations:			
•	Mike Watkins on-s	site.			
•	Maxy began excavat at a depth of 1.5 temporarily placed trench. OVM readings in the Contaminated soil. The suction lateral specified in the dearth suction lateral and the suction lateral specification.	vating for the suction herefeet. An OVM was all on poly next to the treatment approximately 4 proved from the poly to 1 opening in manhole Taign modification. An accordance of the sign modification.	opm. Workers were the soil stockpile of was diamond conditional hole was	n excavating at manhole T1. Soil was contaminated, contaminated ned soil being stockpiled on the opposite aring respirators because of the smell, area. ore drilled larger to accept the 4-inch didiamond cored for the electrical conduit, a drilled larger to accept the 4-inch diamet	soil being side of the ameter pipe
V	isitors:				

ADDENDUM 1

<u>Crew:</u> Maxymillian Tec	hnologies	Equipment
Chester Trzcinski	Foreman	CAT 966G Loader
Art Miekens	Operating Engineer	CAT 330L Excavator
4		1 Trench Box
Yvonne Stillis	Skilled Laborer	
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks Diesel Generator
		Case backhoe
·		Case backnoe
beontractors		
Crew		<u>Equipment</u>
·		
	<u> </u>	
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Attachments [sketches,	test data, other]	
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epared by: Brown a	nd Caldwell CQA Repres	entative
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	O 12 regige	(signature)
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eviewed by:	Canal	(signature)

ADDENDUM 1

Observer:	Cloudy, 70s				· ·			•
	Eric Rogge						*	
ies:				V		, , , , , , , ,		
Site Prepara Manhole Ins		-1				installation	n eatment Pla	ant
Trench Con						_		
X Soil Charact				Othe				
Soil Disposa	!							
	•					*		
otion of Activities &	Observations:						•	
		•					·	
Continued diggin	g suction nine	trench. All e	xcavated s	oil was sta	ined and	read posi	tive on the	OVM.
and compacted 6-						F		
 Diamond core dri 	lled a hole in m	nanhole T1 for	the electri	cal conduit	t.			
 Built a berm alon 								
					юраон.			
 Began laying 6-ir 	ch suction head	der pipe startir	ig at manh	ole T1.				
 Maxy sampled th 	e soil stockpile.	. 3 composite	sample an	d 14 grab s	amples w	ere taken	as required	by the
	o bon blockpile.	. o composite	D4111P10		T		•	•
facility.								
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ADDENDUM 1

<u>Crew:</u> Maxymillian Teo	chnologies	Equipment	
Chester Trzcinski	Foreman	Case backhoe	
Art Miekens	Operating Engineer	CAT 330L Excavator	
Yvonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
· · · · · · · · · · · · · · · · · · ·	L L	Diesel Generator	1
bcontractors			
Crew		<u>Equipment</u>	
			
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Attachments [sketches,	test data, other		* .
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viewed by:	()	(signature)	. ,

ADDENDUM 1

Date:	5-8-03						
Weather:	Overcast, 60s =>	> Showers					
Observer:	Eric Rogge				· · ·		
vities:	•			-			
Site Preparat	tion	•			e Installatio		
Manhole Inst					_	eatment Plar	
Trench Cons		•			·		
Soil Characte				Other			
Soil Disposal							
ription of Activities & (Observations:						
stained with positi at the end of the de Weekly conference Backfilled stone a	ay. e call. bove the suction h	eader between	the joints.				
Installed suction helbow was installed.	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	ned lateral a	ing "Y" at it	n header.	1 22.0 005
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	med lateral a	ing Y at II	n header.	. 22.0 dag
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	ned lateral a	ing Y at it.	n header.	1220 005
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	illed lateral a	ing Y at II	n header.	1220 005
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	ned lateral a	ing Y at it.	n header.	
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	ned lateral a	ing Y at II	n header.	
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	illed lateral a	ing Y at II	n header.	
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	ned lateral a	ing Y at II	n header.	
 Installed suction b 	eader cleanout ris	er near manhol ation where the	le T1. Insta e manhole T	illed lateral a	ing Y at II	n header.	1230 005
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	illed lateral a	ing Y at it	n header.	
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	illed lateral a	ing Y at II	n header.	
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	illed lateral a	ing Y at it	n header.	
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	Hed lateral a	ing Y at it	n header.	
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	Hed lateral a	ing Y at II	n header.	
 Installed suction b 	eader cleanout ris	er near manhol	le T1. Insta e manhole T	illed lateral a	ing Y at II	n header.	

ADDENDUM 1

Crew: Maxymillian Tec	hnologies	Equipment		
Chester Trzcinski	Foreman	Case backhoe	· ·	
Art Miekens	Operating Engineer	CAT 330L Excavator		
Yvonne Stillis	Skilled Laborer	1 Trench Box		
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	,	
	!	Diesel Generator		
	<u> </u>	<u></u>		
ıbcontractors			·	
Crew	,	Equipment		
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Attachments [sketches, t	est data, other]			
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ADDENDUM 1

ADDENDUM 1

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

<u>Crew:</u> Maxymillian Teo	chnologies	Equipment	*
	· · · · · · · · · · · · · · · · · · ·		
Chester Trzcinski	Foreman	Case backhoe	
art Miekens	Operating Engineer	CAT 330L Excavator	
vonne Stillis	Skilled Laborer	1 Trench Box	,
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
		Diesel Generator	'
contractors			,
Crew		Equipment	
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Crie	ie & Roge	(signature)	
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Reviewed by:

ADDENDUM 1

	Date:	5-13-03	· · · · · · · · · · · · · · · · · · ·	,		<u> </u>	,
•	Weather:	Cloudy, Windy,	50ş	-	•		·
	Observer:	Eric Rogge	,		r .	, , ,,	
ctivities:	• • • • • • • • • • • • • • • • • • • •	,	e ·			· ·	.
	Site Preparat	ion :		X	Suction Pipe	e Installation	
	Manhole Inst	a contract of the contract of	•			narge to Treatme	ent Plant
	Trench Const				Other	· .	
	Soil Characte	erization			Other	· · · · · · · · · · · · · · · · · · ·	
-	Soil Disposal	. '	2				
		, · ·		•			,
scription o	f Activities & C	Observations:	•	-	•		
		,			- ,		
• Co	mpleted constru	ction of piping in	side manhole T	1. Down	pipe attached	to manhole wal	next to steps. Tw
and	chors were used	to secure the dow	npipe to the ma	anhole sid	le. The valve	e was installed w	ith the handle on it
sid	le for access from	n the large manhol	e opening.		,		•
• Ins	stalled piping in	manhole T2, piping	g was installed i	in the san	ne orientation	as manhole T1.	
							T2. Water appeared
							ole T1. Filled entii
	e system for pre						,
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ADDENDUM 1

Crew: Maxymillian Tech	inologies	Equipment	
Chester Trzcinski	Foreman	Case backhoe	
art Miekens	Operating Engineer	CAT 330L Excavator	
vonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
		Diesel Generator	
ocontractors			
rew		<u>Equipment</u>	
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Attachments [sketches, to	est data, other]	· · · · · · · · · · · · · · · · · · ·	
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ADDENDUM 1

Weath				
	er: Cloudy, 50s			<u>. </u>
Observ	er: Eric Rogge			
tivities:		v	G 4 District	
Site Prepare		X	_ Suction Pipe Installation	Dlant
	Installation onstruction		Water Discharge to Treatment Other	Гіаш
	acterization		Other	-
Soil Dispo				-
	: *		A	
scription of Activities	& Observations:	•		
				
			valve for bleeding air out of the sys	iem, and me of
	s powered pressure pump			
	poly next to suction head			
			er, pressurizing the pipe to 50 psi, a	
monitoring the	pressure in the system.	Any drop in the p	ressure would indicate a leak. All	joints and fitti
	vered to ease in finding a			-
			nanhole T1. The compressor attach	ment has press
			alve attached to the cleanout near ma	
 Both fabricated 	i cleanout caps began lea	king from the threa	ds before the system reached 50 psi.	. Rethreaded c
using thread se	alant.			•
		alves in each manho	le were opening slightly to let any t	rapped air esca
			5 PM). After 2 hours (5:35 PM) t	
				ne pressure in
	150 nei. The pressure w	as released from the	cleanout near manhole T1	ne pressure in
system was sti			cleanout near manhole T1.	
 system was still Cleaned out 2ⁿ 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
 system was stil Cleaned out 2ⁿ stockpile. All 	d frac tank using Speed-I	E Dry and brooms.		placed in the
 system was still Cleaned out 2ⁿ 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
 system was stil Cleaned out 2ⁿ stockpile. All 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
 system was stil Cleaned out 2ⁿ stockpile. All 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
 system was stil Cleaned out 2ⁿ stockpile. All 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
 system was stil Cleaned out 2ⁿ stockpile. All 	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the
system was stil Cleaned out 2 ⁿ stockpile. All	d frac tank using Speed-I	E Dry and brooms.	Material was shoveled into bags and	placed in the

ADDENDUM 1

CHESTER WATERFRONT REDEVELOPMENT PROJECT CHESTER, PENNSYLVANIA

Crew: Maxymillian Tecl	nologies	Equipment	· · · · · · · · · · · · · · · · · · ·
Chester Trzcinski	Foreman	Case backhoe	. ,
Art Miekens	Operating Engineer	CAT 330L Excavator	
Vonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
	, и	Diesel Generator	
ocontractors	,		
Crew		Equipment	
			· · · · · · · · · · · · · · · · · · ·
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Attachments [sketches, te	st data, other]		
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pared by: Brown and	d Caldwell CQA Represen	tativa	

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ADDENDUM 1

Date:	5-15-03				
Weather:	Cloudy, 50s	-			
Observer:	Eric Rogge				
		,			
tivities:		X	Suction Din	e Installation	4
Site Preparat				harge to Treatn	nent Plant
Manhole Inst		<u> </u>		_	
Trench Cons Soil Characte			Other Other		
Soil Disposal		•	_ Other		
Son Disposar					
scription of Activities & C)bservations:			•	·
-	r e			4.	
	e in joint and fitting areas in	1 the suction h	eader trench.	Filled to 4-inche	s above suction head
and compacted.	ond c	D			
	2 nd frac tank using Speed-E			•4	
	uphill side of the suction he	ader trench us	sing stripped to	psoil.	
 Weekly conference 					
 Began placing election 	ctrical conduit starting at ma	ınhole T1. Fir	st electrical pu	ll box placed nea	ir manhole 11, cond
placed down onto	stone with elbows going up	into the pullb	ox. Placed ren	naining electrical	. conduit, including t
manhole T2 latera	l conduit, in the trench up to	the terminati	on point. The	next two pull bo	xes were installed, o
near manhole T2 a	nd one near the termination	point.	- · .	-	
	n manholes and pipes using		out.		
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Visitors:		F	_	·	

ADDENDUM 1

ontractor's Resources	<u> </u>	
Crew: Maxymillian Te	chnologies	Equipment
Cl		Case backhoe
Chester Trzcinski	Foreman	
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks
		Diesel Generator
ıbcontractors		
Crew		Equipment
		
Attachments [sketches,	test data, other]	
		
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repared by: Brown a	nd Caldwell CQA Repres	sentative
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eviewed by:	(a)	(signature)
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ADDENDUM 1

	5-19-03					
Weather:	Sunny, 60s					
Observer:	Eric Rogge					
•.•						
vities: Site Preparat	ion		X	Suction Pipe	Installation	
Site Preparat Manhole Inst					arge to Treatmen	t Plant
Trench Const	truction	r.				
Soil Characte	erization	•		Other		
Soil Disposal		•		-		
		•				
ription of Activities & C	Observations:			•		1
Cleaning inside of	2nd frac tank using	Go-Jo.				
Spread 6-inches of	f type 1 stone in s	uction heade	r trench al	ove the electr	ical conduit. Spr	ead and compac
structural fill abov	re the type 1 stone.	Laid detecta	ble tape in	arking location	n of the electric li	ne in the trench
inches above the el	lectric conduit					
		,		.1 1		
 Pull box covers we 	ere brought up to the	e proper grad	e using bri	ck and mortar.		
 Filled suction head 	ier trench up to grad	le with struct	ural fill. T	he termination	end of the trench	was left open.
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ADDENDUM 1

Crew: Maxymillian Teo	chnologies	Equipment
Chester Trzcinski	Foreman	Case backhoe
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks
Cicignion Richardson	BRITICU EUDOICI	Diesel Generator
 		Dioser Conclusion
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ibcontractors		
Crew		Equipment
		
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Attachments [sketches,	test data, other]	
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epared by: Brown a	nd Caldwell CQA Repres	entative
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eviewed by:		(signature)
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ADDENDUM 1

Date:	5-20-03		
Weather:	Sunny, 60s		
Observer:	Eric Rogge		
Activities:			
Activities: Site Preparat	ion	X Suction Pipe Installation	
Manhole Inst		Water Discharge to Treatment Plant	
Trench Cons		Other	
Soil Characte		Other	
Soil Disposal			
Graded work area Removed tempora sump with type 1	with backhoe.	lled out the submersible pump and wrapped with poly. siece of geotextile above stone. Placed a 2-foot thick l	Filled
select fill in the su filled the area with Grouted manhole s	ump and tamped with a 2x4. Puin structural fill. Seal area on both manholes in an	alled off 4-foot long upper section of corrugated sump p may areas were the sealing edge was damaged.	pipe and
Created a tempora	ry road on the river side of the v	work area. Road will go around the suction header trend	ch work
	manholes and MW-14 with stake		
• Cleaned the 2 nd fra	ic tank with Go-jo. Moved frac	tank to paved area using the excavator.	
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ADDENDUM 1

hnologies	Equipment	
T =		
Foreman	Case backhoe	
Operating Engineer	CAT 330L Excavator	
Skilled Laborer	1 Trench Box	
Skilled Laborer	2 20,000 gal. Frac Tanks	
	Diesel Generator	
	Equipment	·
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nd Caldwell COA Repress	entative	
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S Czyl	(signature)	
Gpu 9	(signature)	
	Skilled Laborer Skilled Laborer Skilled Laborer est data, other]	Skilled Laborer 1 Trench Box Skilled Laborer 2 20,000 gal. Frac Tanks Diesel Generator Equipment

ADDENDUM 1

Date:	5-21-03		
Weather:	Rain, 50s		
Observer:	Eric Rogge		
Activities:			
Site Preparat	ion	X Suction Pipe Installation	
Manhole Inst	allation	Water Discharge to Treatment Pla	nt
Trench Const	truction	Other	
Soil Characte	erization	Other	<u> </u>
Soil Disposal			
 2nd frac tank sent excavator and still Placed and compaction Received verbal o. 	cted structural fill around manho	oved to the large paved area. The tank was met of product. The product of the pr	oved with the
 A location to end north-west vent graand up through the Cleared vegetation and debris to the swith stakes. 	the suction header near the treate on the treatment plant. This effoor or up the outside of the bun and debris from the path of the dide of the work area. The appropriate the boat slip at the south-we	eatment plant was chosen. The location is 36-in location will give the option of running the pipe u	all vegetation vas marked out
Visitors:			

ADDENDUM 1

Crew: Maxymillian Teo	chnologies	<u>Equipment</u>
Chester Trzcinski	Foreman	Case backhoe
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks
		Diesel Generator
bcontractors		
Crew		Equipment
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Attachments [sketches,	test data, other]	
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	nd Caldwell CQA Repres	sentative
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eviewed by:	2 Capell	(signature)

ADDENDUM 1

Date:	5-22-03			
Weather:	Overcast, 40s			
Observer:	Eric Rogge			
Activities:				
Site Preparat	ion	\mathbf{X} .	Suction Pipe Installation	
Manhole Inst	allation		Water Discharge to Treatment Plan	
Trench Const	truction		Other	
Soil Characte	erization		Other	
Soil Disposal				
Description of Activities & C	Observations:			
Continued excavate		n the excava	tion was stained and showed high rea	dings on the
OVM.				
• Installed 40-feet of	f suction header pipe. Spread t	type 1 stone	over the pipe between the joints.	
TT 1/				
Visitors:				

ADDENDUM 1

Contractor's Resources		177
Crew: Maxymillian Tee	chnologies	Equipment
Chester Trzcinski	Foreman	Case backhoe
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks
Creighton Richardson	BRITCH Editorer	Diesel Generator
		ploor convince
ubcontractors		
Crew		Equipment
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Attachments [sketches,	test data, other	
repared by: Brown a	nd Caldwell CQA Repres	sentative
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Reviewed by:	(-24)	(signature)

ADDENDUM 1

	Date:	5-27-03								
Weat	_	Cloudy,	·	,						
Obser	rver:	Eric Ro	gge						_	
rities:				1			•			
Site Pre	eparati	ion	•		X	Suction	Pipe Install	ation		
Manhol					X) Discharge to		t Plant	
Trench										
Soil Cha		rization				Other_		<u> </u>		
Soil Dis	posal	•	•							
ription of Activitie	es & O	bservati	ions:				•	•		
 water and pu Fence subco through. Moved the b 	ntracto	or on-site	e. Remove	d fence int	o treatment	t plant trai	ler where the	suction he	eader trenc	
 Moved the b 	ag mite	rs dack i	to their orig	ginai iocaii()II licar the the trench	through #	piaiii. Tiit II e hag filtere	ac lauks lia to the frest	ment nlant	γcu
C.11		r will be	: pumpea a	песцу поп	me nench	. untougn u	e dag illiers	ю ше цеац	шені ріані. 1 а мэт	
of the area, s	so wate			In atautima t	Lam tha to					ned
Began excav	vating s	suction h	eader trend	ch starting i	rom the tre	eatment pla	int while the	open trenc	n was pum laced to the	ped e sid
Began excav Most of the s	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
Began excav Most of the s	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
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 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
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 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	ın odor. Thi	s soil was p	laced to the	e sid
 Began excave Most of the strench further trench furth	vating s soil fro	suction hom the ex	cavation w	as not stair	ned and did	not have a	in odor. This	s soil was p	laced to the	e sid

ADDENDUM 1

Crew: Maxymillian Teo	chnologies	<u>Equipment</u>
Chester Trzcinski	Foreman	Case backhoe
	<u> </u>	CAT 330L Excavator
Art Miekens	Operating Engineer	
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks
		Diesel Generator
ıbcontractors		
Crew		Equipment
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Attachments [sketches,	test data, other]	
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repared by: Brown a	nd Caldwell CQA Repres	entative
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eviewed by:		(signature)

ADDENDUM 1

Date:	5-28-03		
Weather:	Cloudy, 50s		
Observer:	Eric Rogge	· · · · · · · · · · · · · · · · · · ·	
Activities:		,	
Site Preparat	tion	X Suction Pipe	Installation
Manhole Inst		X Water Discha	arge to Treatment Plant
Trench Cons	truction		
Soil Characte		Other	
Soil Disposal			
		,	•
 Finished excavatin Working on the flow ashed in soil, if the pipe back at the soil in the area. Measured size of soil in stockpill the trench that is not in the pipe not building. Spread type 1 stores Stained soil adjace 	the soil was stained it was place ne proper depth. The last section soil stockpile for the purpose of e is approximately 850 tons, ass not in the soil stockpile is 90 tons on header pipe up to the treatme	Most of the soil for the daspended the pipe from 4x4 don poly next to the trench of pipe was cut off becaugetting a volume of soil resuming a density of 1.75 to s. In plant. A cleanout was in the treatment plant end of the treatment plant end of the poly for the night.	by was stained. Is laid across the trench. Dug out as the theorem was removed to p use the there was too much washed maining to be disposed. Total weig ons/CY. The weight of the soil fro unstalled at approximately the halfweight he pipe running up the outside of the
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Visitors:			
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ADDENDUM 1

ontractor's Resources		T animont	
Crew: Maxymillian Teo	chnologies	Equipment	
of the traffic	Faraman	Case backhoe	
Chester Trzcinski	Foreman		
Art Miekens	Operating Engineer	CAT 330L Excavator	
Yvonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
		Diesel Generator	
bcontractors			
Crew	<u> </u>	Equipment	
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Attachments [sketches,	test data, other]		
epared by: Brown a	and Caldwell CQA Repre	sentative	
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eviewed by:	Capil	(signature)	

ADDENDUM 1

Cloudy, 60s Eric Rogge	Date:	5-29-03		
Activities: Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work	Weather:	Cloudy, 60s		
Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work	Observer:	Eric Rogge		
Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work	Activities:			
Manhole Installation Trench Construction Soil Characterization Soil Disposal Other Soil Disposal Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work		ion	X Suction Pipe Installation	
Soil Disposal Description of Activities & Observations: Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work				
 Soil Disposal Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work 	Trench Const	truction		
 Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work 		rization	Other	
 Moved stained soil from the suction header trench excavation to the soil stockpile. The soil stockpile was enlarged. Began pressure testing the entire suction header system. The compressor was attached to the cleanout manhole T1 and the air release valve was installed on cap at the treatment plant. Both cleanout caps in bet were leaking. One of the caps shattered under the pressure. Heavier duty schedule 40 caps were found installed. Restarted pressure test, adapter caps for the compressor and the air release valve both cracked began leaking. The pressure fell from 50 to 40 psi after 45 minutes. Discovered test pits dug by PREI earlier in the day. A total of 6 test pits were dug in a line between the work 	Soil Disposal			
	 Moved stained soil enlarged. Began pressure termanhole T1 and the were leaking. On installed. Restarted began leaking. The Discovered test pit. 	I from the suction header trench sting the entire suction header he air release valve was installed he of the caps shattered under the ed pressure test, adapter caps for he pressure fell from 50 to 40 psi his dug by PREI earlier in the day.	system. The compressor was attached to do not ap at the treatment plant. Both cleans the pressure. Heavier duty schedule 40 cast or the compressor and the air release valve after 45 minutes. A total of 6 test pits were dug in a line bet	o the cleanout near out caps in between ups were found and e both cracked and
Visitors:				

ADDENDUM 1

<u> </u>	chnologies	Equipment	·
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Chester Trzcinski	Foreman	Case backhoe	
Art Miekens	Operating Engineer	CAT 330L Excavator	
vonne Stillis	Skilled Laborer	1 Trench Box	
reighton Richardson	Skilled Laborer	2 20,000 gal. Frac Tanks	
		Diesel Generator	
			·
contractors			
Crew	 	<u>Equipment</u>	
			·
Attachments [sketches,	test data, other]		
Attachments [sketches,	test data, other]		
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	nd Caldwell CQA Repres	entative(signature)	
epared by: Brown a	nd Caldwell CQA Repres	· .	

ADDENDUM 1

Weather: Sunny, 60s Characterization Clean Ventures on-site, cleaning the 1st frac tank. Using pressure washers ane Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Starte pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ. Filled the suction header trench with type 1 stone to 4-inches above the suction		
Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Clean Ventures on-site, cleaning the 1st frac tank. Using pressure washers and Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Starte pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C Clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ.		
Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Clean Ventures on-site, cleaning the 1 st frac tank. Using pressure washers and Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Started pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C Clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ.		
Site Preparation Manhole Installation Trench Construction Soil Characterization Soil Disposal Clean Ventures on-site, cleaning the 1 st frac tank. Using pressure washers and Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Started pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C Clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ.		
Manhole Installation Trench Construction Soil Characterization Soil Disposal Clean Ventures on-site, cleaning the 1 st frac tank. Using pressure washers and Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Started pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C Clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ.	Installation	
Trench Construction Soil Characterization Soil Disposal Clean Ventures on-site, cleaning the 1 st frac tank. Using pressure washers and Began pressure testing the suction header pipe again. Started test at 8:35, pre Both cleanout caps were found to be leaking and were retightened. Starte pressure was 48 psi. A 2 psi drop over 2 hours is acceptable since the system Richie and Art are removing rebar from the concrete and soil piles from the C Clean Ventures was not able to get majority of the product off the sides of Sherman and set up a date to come back and finish the job. All product and The fluid was transported to CycleChem, Inc. in Elizabeth, NJ.	arge to Treatment Plan	ıt .
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ADDENDUM :

<u>Crew:</u> Maxymillian Te	chnologies	Equipment
Chester Trzcinski	Foreman	Case backhoe
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	1 20,000 gal. Frac Tanks
		Diesel Generator
beontractors	_L	
Crew		Equipment
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ADDENDUM 1

Weather: Observer: Observer:	Cloudy, 60s					
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es:	Eric Rogge	- • • • • • • • • • • • • • • • • • • •		<u> </u>		
- 5-						
Site Preparatio	n		X		e Installation	
Manhole Instal				_	harge to Treat	
Trench Constr						
Soil Characteri	zation			_ Other		
Soil Disposal					•	
tion of Activities & Ob	servations:					
aun di vichaines et on	WAS I SOUTHING					
Placed electrical cor	nduit in suction	header trench	from 22	.5 degree elboy	w to the treatm	ent plant. An e
pull box was placed	just before the c	leanout appro	ximately	halfway to the	reatment plant	
pull box was placed	just before me c.	1canout appro		he enotion has	dor trongh St	Stead and comp
Placed 6-inches of	stone above the	electrical co	nauit in t	ne suction nea	der french. Si	neau and comp
inches of unstained	excavated soil in	the trench. I	Detectable	marking tape	was unrolled at	oove the compac
The remainder of the	e trench was fille	ed with unstai	ined excar	vated soil. In the	he area where t	he suction head
The lemander of the	1 4 41 cm	1 1 40	had-fill	the transh Al	I unstained evo	avated soil was
goes beneath the ro	ad, structural fil	i was used to	Dackiiii	ше пепсп. Ат	i unstanticu cac	avaice son was
backfill.		•				
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ADDENDUM :

<u>Crew:</u> Maxymillian Teo	chnologies	Equipment	
		Case backhoe	<u> </u>
Chester Trzcinski	Foreman		· · · · · · · · · · · · · · · · · · ·
Art Miekens	Operating Engineer	CAT 330L Excavator	
Yvonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	1 20,000 gal. Frac Tanks	,
		Diesel Generator	
bcontractors			
Crew		<u>Equipment</u>	
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repared by: Brown a	and Caldwell CQA Repres	r	

ADDENDUM 1

Date:	6-4-03		
Weather:	Rain, 50s		
Observer:	Eric Rogge		
Activities:			
Site Preparat	tion	X Suction Pipe Installation	
Manhole Inst		X Water Discharge to Treatment Plant	
Trench Cons		Other	
Soil Characte	erization	Other	
Soil Disposal	•		
			
		•	
Description of Activities & C	Observations:		
The unfinished se	ection of trench was filled to	the top with rainwater from the overnight rain. Place	ed a
		rater through the bag filters to the treatment plant. The pu	
	were drained the trench and pum		
 Graded trench are 	a next to the treatment plant in	preparation for seeding and mulch. Dug holes and set	fence
posts in concrete.			
ſ	_	structural fill. Spread structural fill around manhole T2.	
		ink. Using pressure washer, degreaser, and diesel fuel to	
Elizabeth, NJ.	s of frac tank. Washwater and	product was transported and disposed at CycleChem, In	ic. iii
	ddle behind the goil steelmile to	the grassy area behind and next to the treatment plant.	The
	ean and did not have a sheen.	o the grassy area bening and next to the acathonic plant.	1110
water appeared ele	an and did not have a sheen.		

ADDENDUM 1

Contractor's Resources		<u> </u>			
Crew: Maxymillian Technologies		Equipment			
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Chester Trzcinski	Foreman	Case backhoe			
Art Miekens	Operating Engineer	CAT 330L Excavator			
Yvonne Stillis	Skilled Laborer	1 Trench Box			
Creighton Richardson	Skilled Laborer	1 20,000 gal. Frac Tanks			
		Diesel Generator			
Subcontractors					
Crew		Equipment			
					
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ADDENDUM 1

Date:	6-5-03	
Weather:	Rain, 60s	
Observer:	Eric Rogge	
Activities:		
Site Prepara	tion	Suction Pipe Installation
Manhole Ins		X Water Discharge to Treatment Plant
Trench Cons		X Other: Demobilization
Soil Charact		Other
Soil Disposa		
Description of Activities & Roll-off arrived o	Observations: n-site, timbers from the CT area w	vere loaded in it
The frac tank was	s removed from the site. A flatbe	ed trailer was delivered to the site, Maxymillians supplies will
be transported on		-1 to the amount of most to the sail stadtaile. The middles
	ne son stockpue area were pumpe id did not have a sheen.	ed to the grassed area next to the soil stockpile. The puddles
		suction header trench was reinstalled by a fence subcontractor.
	n the trench construction was sprea	
- Connector Connector treatmen	ed a 2-inch suction hose between	ader system: ne end of the suction header pipe next to the treatment plant. In the reducer and the 2-inch steel valve on the outside of the previously to test the system and feeds into the top of the
- Shut off the syste - Obtained was app	extraction wells. Used the vent m vacuum to 22 in-Hg. I flowrate by timing the transfer p	valve on the top of the air water separator (AWS) to regulate sump off to transfer pump on time on the AWS. The flowrate rate when manholes have been drained to bottom of suction will try again next week.
	olew fuses when the system was r	eturned to its normal settings. Left treatment plant off for the
Visitors:		

ADDENDUM 1

Crew: Maxymillian Teo	chnologies	Equipment	
210.71 II.Maymman 100	our of or	1 Edmbinonia	
Chester Trzcinski	Foreman	Case backhoe	,
Art Miekens	Operating Engineer	CAT 330L Excavator	 4
Vonne Stillis	Skilled Laborer	1 Trench Box	,
Creighton Richardson	Skilled Laborer	1 20,000 gal. Frac Tanks	
reignion Richardson	Skilled Laborer	Diesel Generator	
	1	Diesel Generator	·
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ocontractors		•	
Crew		Equipment	
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ADDENDUM 1

Date:	6-9-03			· · · · · · · · · · · · · · · · · · ·		
Weather:	Cloudy, 60s	a			·	
Observer:	Eric Rogge				· · · · · · · · · · · · · · · · · · ·	
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vities:		•	.			
Site Preparat Manhole Inst				Pipe Installation		
Trench Const		20		Discharge to Trea Demobilization	linent Flant	
Soil Characte	•		Other	Demobilization		
X Soil Disposal						
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ription of Activities & O	bservations:	-				
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header on over nigh	ht.	, - <u> </u>	s as far as possible. y. 17 truck loads of			
			A on-site to observe			
			elaware. 5 truck loa			
• Transported son in	om C1 area to Ci	lean Earm in D	elaware. 3 truck loa	us of soft were trait	isported.	
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chnologies	Equipment	
Foreman	Case backhoe	
Operating Engineer	CAT 330L Excavator	
Skilled Laborer	1 Trench Box	
Skilled Laborer	Diesel Generator	
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	Equipment	
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	Operating Engineer Skilled Laborer Skilled Laborer	Foreman Case backhoe Operating Engineer CAT 330L Excavator Skilled Laborer 1 Trench Box Skilled Laborer Diesel Generator Equipment test data, other] nd Caldwell CQA Representative

ADDENDUM 1

	Date:	6-10-03					
160	Weather:	Sunny, 70s			 -	· .	
	Observer:	Eric Rogge	1			_:	
Activities:	•						
Activities:	Site Preparat	ion		Suctio	n Pipe Installatio	on	
	Manhole Inst			X Water	Discharge to Tr	eatment Plant	
	Trench Cons				: Demobilization		
•	Soil Characte		-	X Other	: Grading		•
X	_ Soil Disposal						
• The man that shall be seen to b	orning. Adjusted the manholes. The arveyors on-site, rental Cat D4C demaining soil in continued running coundwater in bothen changing systozer grading worraightened MW-ental vibrating dation.	nt was not drawing in d the vacuum on the sy e depth to water in both surveying final locatio dozer was delivered to the soil stockpile was so the treatment plant ut th manholes was 12'. I stem back to extraction rk area starting at treatment plant up to the stem back to extraction rk area starting at treatment plant up to the stem back to extraction rk area starting at treatment plant up to the start of	stem up to 23 in manholes was an sof the suction the site to be usent to Chem Contil lunchtime. The flowrate walls. Replacement plant side the site. Roll	n-Hg (from 2 10.5'. The p n header. sed for the fir lear in Delaw Water leve as approxima ed fuses. Spreading s Il had tilted v ed collection	2). The system relant was pulling a nal grading. are. 5 truck loads in manholes reautely 10 GPM. Futructural fill in the when digging the correct area closes.	esumed sucking wat pproximately 38 GF were shipped for the ched equilibrium, do ses in treatment plane e manhole T2 area. collection trench.	er from PM. ne day. hepth to nt blew
• P1	aced metal fence	e posts around the clear	outs and pullb	oxes and pair	ited orange.	•	
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ADDENDUM 1

<u> Crew:</u> Maxymillian Teo	chnologies	Equipment	
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Chester Trzcinski	Foreman	Case backhoe	
art Miekens	Operating Engineer	CAT 330L Excavator	
vonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	Diesel Generator	
ocontractors Crew		Equipment	
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ADDENDUM 1

Suction Pipe Installation Water Discharge to Treatment Plant X Other: Demobilization Other: Grading Used dozer to spread topsoil in collection trench area and up the suction oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
Water Discharge to Treatment Plant Other: Demobilization Other: Grading Used dozer to spread topsoil in collection trench area and up the suction oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
Water Discharge to Treatment Plant Other: Demobilization X Other: Grading Used dozer to spread topsoil in collection trench area and up the suction oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
Water Discharge to Treatment Plant Other: Demobilization X Other: Grading Used dozer to spread topsoil in collection trench area and up the suction oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
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oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
oil around manholes, cleanouts, and pullboxes by hand. take some of their excess soil and fill in the hole left in the soil stockpile pile of soil near the Jeffrey Street entrance and placed in one of the trucks were taken from the pile and placed in the soil stockpile area. Used dozer
in the soil stockpile area. The extra clean haybales left over from the soil on the seed. the flatbed trailer.

ADDENDUM 1

ontractor's Resources Crew: Maxymillian Tee	chnologies	Equipment
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Chester Trzcinski	Foreman	Case backhoe
Art Miekens	Operating Engineer	CAT 330L Excavator
Yvonne Stillis	Skilled Laborer	1 Trench Box
Creighton Richardson	Skilled Laborer	Diesel Generator
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Crew	·	Equipment
		
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ADDENDUM 1

Date:	6-12-03						
Weather:	Cloudy, 80s					·	•
Observer:	Eric Rogge						-
vities:					i.		
Site Preparat	ion	4		Suction 1	Pipe Installat	ion	
Manhole Inst				Water D	ischarge to T	reatment Pl	ant
Trench Cons			X		emobilizatio	n	
Soil Characte	rization			Other		·	
Soil Disposal				•			
Rental "mulch can	. <u>.</u>	site. 1 load of st	raw delive	ered to the	site.		_
Spread seed by har						trench areas	, inside fence
treatment plant).	•					e .	
Spread straw over	all areas disturbe	ed from work us	ing "mulc	h cannon."			
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Crew: Maxymillian Te	chnologies	Equipment	
Chester Trzcinski	Foreman	Case backhoe	
Art Miekens	Operating Engineer	CAT 330L Excavator	
Yvonne Stillis	Skilled Laborer	1 Trench Box	
Creighton Richardson	Skilled Laborer	Diesel Generator	
ubcontractors Crew		Equipment .	
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APPENDIX C LOG OF PROJECT SUBMITTALS

SUBMITTAL LOG

CHESTER WATERFRONT REDEVELOPMENT PROJECT EXELON POWER CORPORATION

CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

No.	Submittal Description	Ref. Spec.	Date Received	Action Taken	Action Date	Responsible Subcontractor	Comments .
001	HASP	01060.1.03	9/16/02	MC	9/30/02	Maxymillian	Correct hospital
001A	Revised hospital information	01060.1.03	10/4/02	NE	10/4/02	Maxymillian	
002	Subcontractor Notification - Surveying	01050.1.04	9/16/02 ·	NE	9/20/02	Maxymillian	Not all information provided as requested
002A	Surveying – Revised certificate of insurance	01050.1.04	9/30/02	NE .	9/30/03	Maxymillian	
003	Environmental Protection Plan	01110	9/16/02	MC	9/20/02	Maxymillian	Don't discharge untreated water. Supply info on pumps. The comments were noted by Maxymillian and implemented on the Site.
004	Site Security Plan	01540-1.04	9/17/02	NE	9/20/02	Maxymillian	•
005	Soil Handling Plan	02210-1.03	9/18/02	AR	9/20/02	Maxymillian	Don't discharge untreated water. Supply info on pumps. Clarify that all excavation will be characterized. The comments were noted by Maxymillian and implemented on the Site. BCC gave verbal approval.
006	Demolition Plan	02060-1.04	9/19/02	NE	9/20/02	Maxymillian	•
007	Geotextile - SI Geotex 1001	02233-2.02	9/23/02	NE	10/4/02	Maxymillian	
007A	Geotextile – SI Geotex 1001 QA/QC Program, Roll Numbers, QC Results	02233-1.06C	9/30/02	NE	10/4/02	Maxymillian	
800	Information about Earthwork Equipment	02200-1.05	9/23/02	NE	9/29/02	Maxymillian	
009	Physical Testing Lab – Underwood Engineering	02200-1.05B	9/30/02	NE	10/4/02	Maxymillian	
010	Chemical Testing Lab – Val Associates		9/30/02	MC	10/4/02	Maxymillian	NJDEP Certification Expired – Verify lab has necessary certifications
010 A	Val Associates application for renewal of certification		10/8/02	MC	10/15/02	Maxymillian	Provide documentation that the disposal facilities do not require specific lab certification for proper characterization.
011 012	Schedule of Values Material Source – Structural Fill	02095 02200- 1.05D	9/30/02 9/30/02	NE NE	10/15/02 10/4/02	Maxymillian Maxymillian	

LEGEND: AR = Amend and Resubmit

MC = Make Corrections Noted

NE = No Exceptions
NA = Not Applicable

SUBMITTAL LOG CHESTER WATERFRONT REDEVELOPMENT PROJECT **EXELON POWER CORPORATION** CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

No.	Submittal Description	Ref. Spec.	Date Received	Action Taken	Action Date	Responsible Subcontractor	Comments
013	Clean Source Cert. For Stone Sieve Analyses – 2.01(2A), 2.02 (#57), 2.03 (#3)	02200- 1.05C, D	10/2/02	NE	10/21/02	Maxymillian	
014	Grading Plans – Areas 11	02200.1.05; 02510-1.04	10/15/02	AR	10/22/02	Maxymillian	Numerous comments and questions. Grading plans were later modified by BCC. See Submittal 019 below.
014A	Grading Plans – Areas 10	0220.1.05; 02510-1.04	10/15/02	AR	10/22/02	Maxymillian	Numerous comments and questions. Grading plans were later modified by BCC. See Submittal 020 below.
015	R-7 Cert. Of Compliance	02200-2.03	10/16/02	NE	10/21/02	Maxymillian	•
016	Soils Analytical: 0-1800 tons for PA or 0-1500 tons for DE	NA	10/18/02	NA	NA	Maxymillian	No response warranted
016A	Soils Analytical: 1800-3500 tons for PA or 1500-3500 tons for DE	NA -	10/25/02	NA	NA	Maxymillian	No response warranted
017	Area 14 Asbestos Analytical	NA	10/21/02	NA	NA	Maxymillian	No response warranted; Corrected 10/22/02
018	Structural Fill – Physical Properties	02200-2.03	10/21/02	NE	10/23/02	Maxymillian	210 200 Police (100 200 200 200 200 200 200 200 200 200
019	Grading Plan – Area 10	02510-1.04	10/28/02	revised by BCC	4/3/03	Maxymillian	Resubmittal of 014A; grading plan revised and sent to MT by BCC.
020	Grading Plan – Area 11	02510-1.04	11/14/02	revised by BCC	4/3/03	Maxymillian	Resubmittal of 014; grading plan revised and sent to MT by BCC.
021	Compaction Tests – Area 1	02200-3.05F	12/3/02	NE	12/3/02	Maxymillian	No response warranted
045	Paving Contractor	02510-1.04	6/9/03	MC	9/5/03	Maxymillian	Trinity prequalification certificate expired on 6/30/03.
046	Record Drawings (excluding Areas 10 & 11)	01050-4	11/13/03	NA ·	NA	Maxymillian	No response warranted
048	Photographic Record (excluding Areas 10 & 11)	01380.1.04	11/13/03	NA	NA	Maxymillian	No response warranted
050	Aggregate Base	02510-3.01	10/14/03	NE	10/15/03	Maxymillian	

LEGEND: AR = Amend and Resubmit

MC = Make Corrections Noted

NE = No Exceptions R = Rejected

NA=Not Applicable

SUBMITTAL LOG

CHESTER WATERFRONT REDEVELOPMENT PROJECT

EXELON POWER CORPORATION CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

No.	Submittal Description	Ref. Spec.	Date Received	Action Taken	Action Date	Responsible Subcontractor	Comments
051	Waste Manifests	NA	11/13/03	NA	NA	Maxymillian	No response warranted.
	(excluding Areas10 & 11)						
052	As-built Plans (Areas 10 and 11)	01050.1.04, 01700.1.04	11/24/03	AR	11/25/03	Maxymillian	Redundant data and legend correction. Comments were provided verbally to Maxymillian.
052A	As-built Plans (Areas 10 and 11)	01050.1.04, 01700.1.04	12/4/03	MC	12/4/03	Maxymillian	As-built drawing for Area 11 missing. Comments were provided verbally to Maxymillian.
052A	As-built Plans	01050.1.04,	12/11/03	NE	12/11/03	Maxymillian	
adden.	(Area 11)	01700.1.04					

LEGEND: AR = Amend and Resubmit

MC = Make Corrections Noted

NE = No Exceptions R = Rejected

NA=Not Applicable

SUBMITTAL LOG CHESTER WATERFRONT REDEVELOPMENT PROJECT ADDENDUM 1

EXELON POWER CORPORATION CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

No.	Submittal Description	Ref. Spec.	Date Received	Action Taken	Action Date	Respons. Vend/Sub	Comments
16B	Soils Analytical data for 1600 and 540 tons to Clean Earth Pennsylvania or Delaware		5/29/03	,			No response required.
22	Env. Protection Plan	01110-1.2	1/30/03	Α	2/7/03	Maxymillian	
23A	Health and Safety Plan	01340-1.3	1/30/03			,	No response required.
24	Work Area Security Protocol	01540-1.4	1/30/03	AN	2/7/03	Maxymillian	Verify where entrance to work area will be.
24A	HII	m	2/10/03	Α	2/14/03	Maxymillian	•
25	Soil Handling Plan	02325-1.3	1/30/03	RR	2/7/03	Maxymillian	Please provide information on the location and construction of the soil stockpile. Any water shall be contained in accordance with 02325-3.3(G). Please provide more detail in the characterization procedure (i.e., types of samples, analyses).
25A	un	un	2/11/03	AN	2/14/03	Maxymillian	Water shall be maintained in accordance with Specification Section 02325-3.3(G)
26	Water Control/Dewatering Plan	02228-1.2	1/30/03	AN	2/7/03	Maxymillian	Please clarify the use of a 100 micron bag filter, the specifications require a max 50 micron.
26A	Off	1711	2/10/03	Α	2/14/03	Maxymillian	- T
27	Lab data for Structural Fill material	02300-2.1	1/30/03	Not Approved	2/7/03	Maxymillian	The revision to spec requires minimum 15% passing #200.
27A .	ип	HU	1/30/03	AN	2/14/03	Maxymillian	Shall be placed above 2 foot "select fill" layer to 4-inches below grade. Place material in 12 inches lifts, minimum 3 passes with compactor.
28	Lab data for Type 1 material	02300-2.2	1/31/03	AN	2/7/03	Maxymillian	Please provide a sample to this office and a second laboratory test per the spec.
28A	IIII	80	2/13/03	Α	2/14/03	Maxymillian	
29	Lab data for Type 2 material	02300-2.3	1/31/03	AN	2/7/03	Maxymillian	Please provide a sample to this office and a second laboratory test per the spec.
29A	nu	IIII	2/13/03	Α	2/14/03	Maxymillian	
30	Lab data for Collection Pipe Bedding Material	02300-2.4	1/31/03	A	2/7/03	Maxymillian	
31	Surveyor Qualifications	01300-1.3	1/30/03	Α	2/7/03	Maxymillian	
32	Construction Sequencing Plan	02931-1.4	2/3/03	AN	2/7/03	Maxymillian	Please clarify if haybales will be staked in accordance with the plans and specs in areas other than the access area.

LEGEND: A=Approved

AN = Approved as Noted

RR= Revise and Resubmit

NE = No Exceptions

NA=Not Applicable

SUBMITTAL LOG CHESTER WATERFRONT REDEVELOPMENT PROJECT **EXELON POWER CORPORATION ADDENDUM 1**

CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

shutdown of system. Shall not be down for 24 hours. The 2-inch suction line shall be at the MH using a strut channel, hangars and properties and shall be accessible from the small MH control of the geotextile. Place in 2 12-inch lifts and control of the geotextile. Place in 2 12-inch lifts and control of the geotextile. Place in 2 12-inch lifts and control of 3 passes. 39 Topsoil sample 3/6/03 No response required. 40 Working Construction Schedule 3/4/03 A 3/14/03 Maxymillian			· · · · · · · · · · · · · · · · · · ·					
Geotextile product data of 2300-1.3H 2/3/03 A 2/7/03 Maxymillian still fence product data and 02931-1.4 2/6/03 AN 2/7/03 Maxymillian please provide the installation instructions. 34A "" 2/10-03 A 2/14/03 Maxymillian installation instructions "" 2/10-03 A 2/7/03 Maxymillian fittings and accessories and construction; Drawing showing manhole locations, elevations, etc. 36 Product data for manhole covers and construction; Drawing showing manhole locations, elevations, etc. 37 Pipe Layout drawings 15151-1.3 2/10/03 AN 2/10/03 Maxymillian showing manhole locations, elevations, etc. 38 Lab data for Select Fill material 02300-2.1 2/13/03 AN 2/14/03 Maxymillian shutdown of system. Shall not be down for 24 hours. The 2-inch suction line shall be at the MH using a strut channel, hangars and p and shall be accessible from the small MH c A 2-foot layer of "select fill" shall be install the geotextile. Place in 2 12-inch lifts and c with a minimum of 3 passes. 39 Topsoil sample 3/6/03 3/4/03 AN 3/14/03 Maxymillian Maxymillian with a minimum of 3 passes. 39 Topsoil sample 3/6/03 3/4/03 AN 3/14/03 Maxymillian Maxymillian Please provide the installation instructions. 40 Working Construction Schedule 3/4/03 AN 3/14/03 Maxymillian Please provide the installation instructions. 41 Manhole piping layout 15151-1.3 3/12/03 AN 3/14/03 Maxymillian Removed Mention of existing 6-inch header design modification. 42 Soils Analytical for 900 tons soil to Clean Earth in Pennsylvania Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian No response required.	No.	Submittal Description	Ref. Spec.				_	Comments
33 Geotextile product data O2300-1.3H 2/3/03 A 2/7/03 Maxymillian linstallation instructions 34A Silf Fence product data and installation instructions "" 2/10-03 A 2/14/03 Maxymillian 35 Product data on pipe materials, fittings and accessories 36 Product data for manhole covers and construction; Drawing showing manhole locations, elevations, etc. 37 Pipe Layout drawings 38 Lab data for Select Fill material 39 Topsoil sample 39 Working Construction Schedule 40 Working Construction Schedule 41 Manhole piping layout 41 Manhole piping layout 42 PVC pipe testing procedure 43 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 44 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 45 Record Drawings 46 Output Date 47 Record Drawings 48 Output Date 49 Output Date 40 Working Construction Schedule 40 Working Construction Schedule 41 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 42 Record Drawings 44 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 45 Record Drawings 46 Output Date 47 Output Date 48 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 49 Record Drawings 40 Output Date 40 Output Date 41 Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania 44 Record Drawings 45 Output Date 46 Output Date 47 Output Date 48 Output Date 49 Output Date 40 Output Dat	32A	11#	0.0	2/10/03	A	2/14/03	Maxymillian	
Silt Fence product data and installation instructions installation instructions. 34A "" 2/10-03 A 2/14/03 Maxymillian fittings and accessories and construction, Drawing showing manhole locations, elevations, etc. 37 Pipe Layout drawings 15151-1.3 2/10/03 AN 2/10/03 Maxymillian shall be accessible from the small MH c 42-foot layer of "select fill material Manhole piping layout 15151-1.3 3/12/03 AN 2/14/03 Maxymillian Maxymillian Maxymillian Shall be installed in the Geometric Clean Earth in Pennsylvania Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian Maxymillian Maxymillian Maxymillian Maxymillian Sister Place in 2 12-inch lifts and c with a minimum of 2 passes. No response required. 38 In the MH using a strut channel, hangars and p and shall be accessible from the small MH c A2-foot layer of "select fill" shall be installed the geotextile. Place in 2 12-inch lifts and c with a minimum of 3 passes. No response required. 39 Topsoil sample 3/6/03 3/4/03 No response required. 40 Working Construction Schedule 15151-1.3 3/12/03 AN 5/13/03 Maxymillian Maxymillian Maxymillian Maxymillian No response required. 41 Manhole piping layout 15151-1.3 3/19/03 AN 5/13/03 Maxymillian No response required. 42 Soils Analytical for 900 tons soil to Clean Earth in Pennsylvania Removed Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian Removed Mention of existing 6-inch header design modification. No response required.		Geotextile product data	02300-1 3H					
34A "" 2/10-03 A 2/14/03 Maxymillian 35 Product data on pipe materials, fittings and accessories 36 Product data for manhole covers and construction; Drawing showing manhole locations, elevations, etc. 37 Pipe Layout drawings 15151-1.3 2/10/03 AN 2/10/03 Maxymillian 38 Lab data for Select Fill material Lab data for Select Fill material Working Construction Schedule 40 Working Construction Schedule 41 Manhole piping layout 15151-1.3 3/12/03 AN 2/13/03 AN 2/14/03 Maxymillian 42 PVC pipe testing procedure 15151-1.3 3/12/03 AN 5/13/03 Maxymillian 43 Soils Analytical for 900 tons soil to Clean Earth in Pennsylvania 44 Soils Analytical data for 900-18/00 tons to Clean Earth in Pennsylvania 46 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian 47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian 48 Product data for pipe materials, 15151-1.3 2/6/03 A 2/14/03 Maxymillian 49 Manhole piping layout 15151-1.3 3/12/03 A 3/14/03 Maxymillian 40 Clean Earth in Pennsylvania 41 Pennsylvania 42 Product data for pondification. 43 Soils Analytical data for 900-18/00 tons to Clean Earth in Pennsylvania 44 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian 45 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian		Silt Fence product data and						Please provide the installation instructions.
Product data on pipe materials, fittings and accessories Product data for manhole covers and construction; Drawing showing manhole locations, elevations, etc. Pipe Layout drawings Lab data for Select Fill material Topsoil sample Working Construction Schedule Manhole piping layout Manhole piping layout PVC pipe testing procedure Manhole piping layout Soils Analytical for 900 tons soil to Clean Earth in Pennsylvania Soils Analytical data for 900-1800 tons to Clean Earth in Pennsylvania Record Drawings O2633-1.4 2/10/03 A 2/10/03 AN 2/10/03 AN 2/10/03 AN 2/10/03 Maxymillian Coordinate with system operator fro tempors shutdown of system. Shall not be down for 24 hours. The 2-inch suction line shall be at the MH using a struct channel, hangars and p and shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be at the MH using a struct channel, hangars and p and shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be at the MH using a struct channel, hangars and p and shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line shall be accessible from the small MH or 2/4 hours. The 2-inch suction line s	34A	WH.	1111	2/10-03	Α	2/14/03	Maxymillian	
Product data for manhole covers and construction; Drawing showing manhole locations, elevations, etc. Pipe Layout drawings 15151-1.3 2/10/03 AN 2/10/03 Maxymillian Coordinate with system operator fro tempore shutdown of system. Shall not be down for 24 hours. The 2-inch suction line shall be at the MH using a strut channel, hangars and p and shall be accessible from the small MH c 42 hours. The 2-inch suction line shall be are the MH using a strut channel, hangars and p and shall be accessible from the small MH c to 22 hours. The 2-inch suction line shall be accessible from the small MH c and shall be accessible from the small of the geotextile. Place in 2 12-inch lifts and c with a minimum of 3 passes. No response required. Working Construction Schedule Manhole piping layout Manhole piping layout 15151-1.3 3/12/03 AN 3/14/03 Maxymillian Maxymillian Maxymillian Removed Mention of existing 6-inch header design modification. No response required.			15151-1.3		A	2/7/03		
Pipe Layout drawings Pipe Layout drawing shuftlown of system. Shall not be down for shutdown of system. Shall not be down for shutdown of system. Shall not be down for 24 hours. The 2-linch suction line shall be at the MH using a strut channel, hangars and p and shall be accessible from the small MH can be acc	36	Product data for manhole covers and construction; Drawing showing manhole locations,	02633-1.4	2/7/03	A	2/7/03	Maxymillian	
Lab data for Select Fill material Lab data for Select Fill material Description of the process	37		15151-1.3	2/10/03	AN	2/10/03	Maxymillian	Coordinate with system operator fro temporary shutdown of system. Shall not be down for longer than 24 hours. The 2-inch suction line shall be anchored to the MH using a strut channel, hangars and pipe clamp and shall be accessible from the small MH cover.
Working Construction Schedule Manhole piping layout 15151-1.3 3/12/03 A 3/14/03 Maxymillian PVC pipe testing procedure 15151-1.3C 3/19/03 AN 5/13/03 Maxymillian Removed Mention of existing 6-inch header design modification. No response required. No response required. Removed Mention of existing 6-inch header design modification. No response required. No response required. No response required. 15151-1.3C 4/23/03 To Clean Earth in Pennsylvania 4/25/03 1800 tons to Clean Earth in Pennsylvania Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	38	Lab data for Select Fill material	02300-2.1	2/13/03	AN	2/14/03	Maxymillian	A 2-foot layer of "select fill" shall be installed above the geotextile. Place in 2 12-inch lifts and compact with a minimum of 3 passes.
41 Manhole piping layout 15151-1.3 3/12/03 A 3/14/03 Maxymillian 42 PVC pipe testing procedure 15151-1.3C 3/19/03 AN 5/13/03 Maxymillian Removed Mention of existing 6-inch header design modification. 43 Soils Analytical for 900 tons soil to Clean Earth in Pennsylvania 44 Soils Analytical data for 900- 1800 tons to Clean Earth in Pennsylvania 47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	39	Topsoil sample		3/6/03				No response required.
42 PVC pipe testing procedure 15151-1.3C 3/19/03 AN 5/13/03 Maxymillian Removed Mention of existing 6-inch header design modification. 43 Soils Analytical for 900 tons soil 4/23/03 No response required. 44 Soils Analytical data for 900- 1800 tons to Clean Earth in Pennsylvania 47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	40	Working Construction Schedule	•	3/4/03				No response required.
design modification. 43 Soils Analytical for 900 tons soil 44 Clean Earth in Pennsylvania 44 Soils Analytical data for 900- 1800 tons to Clean Earth in Pennsylvania 45 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	41	Manhole piping layout	15151-1.3	3/12/03	Α	3/14/03	Maxymillian	
to Clean Earth in Pennsylvania 44 Soils Analytical data for 900- 1800 tons to Clean Earth in Pennsylvania 47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	42	PVC pipe testing procedure	15151-1.3C	3/19/03	AN	5/13/03	Maxymillian	Removed Mention of existing 6-inch header per the design modification.
44 Soils Analytical data for 900- 1800 tons to Clean Earth in Pennsylvania 47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	43			4/23/03				No response required.
47 Record Drawings 01300-1.3 11/13/03 A 11/25/03 Maxymillian	44	Soils Analytical data for 900- 1800 tons to Clean Earth in		4/25/03				No response required.
48 Construction Photographs 01330-1.3 11/12/03 No response required.	47		01300-1.3	11/13/03	Α	11/25/03	Maxymillian	
	48	Construction Photographs	01330-1.3	11/12/03				No response required.

LEGEND: A=Approved
AN = Approved as Noted
RR= Revise and Resubmit
NE = No Exceptions
NA=Not Applicable

SUBMITTAL LOG CHESTER WATERFRONT REDEVELOPMENT PROJECT **EXELON POWER CORPORATION** ADDENDUM 1

CHESTER, PENNSYLVANIA

Contractor: Brown and Caldwell Constructors

No.	Submittal Description	Ref. Spec.	Date Received	Action Taken	Action Date	Respons. Vend/Sub	Comments
49 51	Pipe testing results Manifests, weight slips, and certificates of destruction	1515-1.4 02325-1.4	11/13/03 11/12/03				No response required. No response required.

LEGEND: A=Approved
AN = Approved as Noted
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1. 9/30/02: Excavation at Area 1 to a depth of approximately 2 ft. Looking south.



2. 10/31/02: Structural backfill at Area 1. Looking south.



3. 9/25/02: Excavation at Area 2 to a depth of approximately 8 ft. Looking north.



4. 12/18/02: Structural backfill at Area 2. Looking east.



5. 9/30/02: Excavation to a depth of approximately 2 ft at Area 5.



6. 9/30/02: Tar-like resinous materials from Area 5.



7. 10/01/02: Backfill of Area 5 with crushed stone aggregate.



8. 1/20/03: Crushed stone and riprap placement on the riverbank. Looking east.



9. 5/12/03: Groundwater collection trench. Placing section of manhole T2, looking southwest.



10. 6/12/03: Backfilll and straw mulch over collection trench. Looking west.



11. 10/30/03: Asphalt pavement cover at Area 11. Looking south.



12. 11/6/03: Asphalt pavement cover at Area 11. Looking north.

Table E-1. Summary of Attainment Sampling Results Chester Waterfront Redevelopment Project Chester, Pennsylvania

Area Description	Sample ID Number	Sample Collection Date (m/d/y)	95% UCL (mg/kg).	Reported Result ^a (mg/kg)	Pass/Fail
	,			· · · · · · ·	
Parcel 5b	40.04	0/40/0000	NIA	55	Pass
	AS-01	9/12/2002	NA NA	38	Pass
	AS-02	9/12/2002	NA NA	36 38	Pass
•	AS-03	9/12/2002	NA NA	36 15	Pass
	AS-04	9/12/2002	NA NA	1.6	Pass
	AS-05	9/12/2002		1.0 <1.0	Pass
	AS-06	9/12/2002	NA NA	38	Pass Pass
	DUP-01	9/12/2002	NA	30	F455
Excavation Area 1			• •	•	
-xcavation Area i	AT-1-027	10/1/2002	82	12	Pass
	AT-1-058	10/1/2002	82	30	Pass
	AT-1-068	10/1/2002	82	56	Pass
	AT-1-005	10/1/2002	82	59	Pass
	AT-1-075	10/1/2002	82	180	Fail
•	AT-1-116	10/1/2002	82	120	Fail
	AT-1-140	10/1/2002	82	23	Pass
·	AT-1-163	10/1/2002	82	230	Fail
	AT-1-103 AT-1-221	10/1/2002	82	20	Pass
	AT-1-221 AT-1-205	10/1/2002	82	130	Fail
r	AT-1-203 AT-1-Dup	10/1/2002	82	170	Fail
,	AT12-019	10/1/2002	82	190	Fail
	AT12-019 AT12-089	10/9/2002	82	51	Pass
	AT12-009 AT12-130	10/9/2002	82 82	51 52	Pass
		10/9/2002	62 82	33	Pass
	AT12-049		62 82	· 40	Pass
	AT12-164	10/9/2002		62	Pass
	AT12-Dup	10/9/2002	82 83		
	AT13-12	10/16/2002	82	21	Pass
	AT13-Dup	10/16/2002	82	19	Pass

a Results shown are for arsenic concentrations in samples from Parcel 5b and for Benzo(a)pyrene in samples from Areas 1 and 2.

Table E-1. Summary of Arsenic Investigation Sampling and Attainment Sampling Results for Chester Waterfront Redevelopment Remedial Action

Area Description	Sample ID Number	Sample Collection Date (m/d/y)	95% UCL (mg/kg)	Reported Result (mg/kg)	Pass/Fail
Excavation Area 2					
	AT24-020	10/7/2002	20	0.2	Pass
•	AT26-020	10/7/2002	20	3	Pass
	AT24-054	10/7/2002	20	<0.073	Pass
	AT26-054	10/7/2002	20	1.4	Pass
*	AT24-057	10/7/2002	20	<0.074	Pass
	AT26-057	10/7/2002	20	37 J	Fail
	AT24-095	10/7/2002	20	0.074	Pass
	AT26-095	10/7/2002	20	<0.080	Pass
	AT24-106	10/7/2002	.20	0.92	Pass
	AT26-106	10/7/2002	20	0.48	Pass
	AT24-112	10/7/2002	20	<0.075	Pass
	AT26-112	10/7/2002	20	21 D	Fail
	AT24-131	10/7/2002	20	<0.074	Pass
	AT26-131	10/7/2002	20	<0.17 D	Pass
	AT24-150	10/7/2002	20	0.49	Pass
	AT26-150	10/7/2002	20	<2.6 D	Pass
	AT24-160	10/7/2002	20	0.59	Pass
	AT26-160	10/7/2002	20 -	2.5 D	Pass
	AT24-219	10/7/2002	20	66 D	Fail
	AT26-219	10/7/2002	20	27 D	Fail
	AT2-Dup	10/7/2002	20	3.9 D	Pass
	AT262-001	11/20/2002	20	<4.1 D	Pass
	AT242-027	11/20/2002	20	8.6 D	Pass
	AT262-027	11/20/2002	20	8.6 D	Pass
	AT22-Dup	11/20/2002	20	13 D	Pass

APPENDIX E-1

ATTAINMENT SAMPLE RESULTS FOR PARCEL 5b



ELAB of Tennessee, LLC

Date: 25-Sep-02

CLIENT:

BROWN & CALDWELL-Middleburg Heig

Project:

PECO Soils

Work Order:

0209087

P. O. Number:

0209067

Date Received:

9/13/02 9:00:00 AM

Comments:

Remarks:

Work Order S	ample Summary
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INVOICE No.: 200005621

Client Sample ID	Reference No.	Collection Date
AS-01		9/12/02 9:00:00 AM
		9/12/02 9:15:00 AM
		9/12/02 9:30:00 AM
		9/12/02 9:40:00 AM
	• •	9/12/02 9:50:00 AM
		9/12/02 10:00:00 AM
		9/12/02 10:00:00 AM
DUP-01		9/12/02
	AS-01 AS-02 AS-03 AS-04 AS-05 AS-06 FB-01	AS-01 AS-02 AS-03 AS-04 AS-05 AS-06 FB-01



ELAB SAMPLE NUMBE	0209087-01			
CLIENT SAMPLE DESC	AS-01 9/12/02 9:00:00 AM			
ANALYTES	CONC			
Arsenic % Solids	1.1 1.0	6010B 2540**	mg/kg (Dry) %	55 87



ELAB SAMPLE NUMBE	0209087-02			
CLIENT SAMPLE DESC	AS-02 9/12/02 9:15:00 AM			
ANALYTES	CONC			
Arsenic % Solids	1.2 1.0	6010B 2540**	mg/kg (Dry) %	38 84



ELAB SAMPLE NUMBE	R			0209087-03	0209087-04		
CLIENT SAMPLE DESC	RIPTION/SAMPLI	NG DATE		AS-03 9/12/02 9:30:00 AM	AS-04 9/12/02 9:40:00 AM		
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC		
Arsenic % Solids	1.1	6010B 2540**	mg/kg (Dry) %	38 87	15 90		



ELAB SAMPLE NUMBE	AB SAMPLE NUMBER											
CLIENT SAMPLE DESC	RIPTION/SAMPLII	NG DATE		AS-05 9/12/02 9:50:00 AM	AS-06 9/12/02 10:00:00 AM							
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC							
Arsenic % Solids	1.0 1.0	6010B 2540**	mg/kg (Dry) %	1.6 95	<1.0 95							



ELAB SAMPLE NUMBER				0209087-07		
CLIENT SAMPLE DESCRIP	FB-01 9/12/02 10:00:00 AM					
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC		
Arsenic	5.0	6010B	μg/L	<5.0		



ELAB SAMPLE NUMBER			_	0209087-08
CLIENT SAMPLE DESCRIP		DUP-01 9/12/02		
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic % Solids	1.2 1.0	6010B 2540**	mg/kg (Dry) %	38 86

See attached page for definitions of terms and qualifiers.

ELAB

D. Rick Davis
Vice President



ANALYTICAL REPORT NOTES, TERMS AND QUALIFIERS (INORGANIC)

Notes:

The metals and cyanide reporting limits (RLs) have been statistically determined to be no less than three standard deviations as defined in 40 CFR 136, Appendix B, Revision 1.11. All other reporting limits are referenced from the specific analytical method.

Terms:

NA Not Applicable

NR Not Requested

Qualifiers:

- B The reported value is less than the practical quantitation limit (PQL, project defined) but greater than or equal to the RL.
- E The reported value is estimated due to the presence of matrix interference.
- N Predigested spike recovery not within control limits.
- * RPD or absolute difference for Duplicate analysis not within control limits.
- ** Reference Standard Methods 19th edition.
- (1) pH analyzed outside USEPA specified holding time. pH must be measured immediately after sample collection.
- (2) The sample pH did not meet the preservation guidelines. Therefore the pH was adjusted upon receipt.
- (3) Reference Standard Methods 17th edition for the distillation method.
- (4) The sample was analyzed out of the USEPA holding time.
- (5) The sample was received in the laboratory out of the USEPA holding time.
- (6) The shipping cooler temperature exceeded 6°C upon receipt to ELAB of Tennessee, LLC.
- (7) Analysis was subcontracted

ELAB OF TENNESSEE ...AIN OF CUSTODY RECORD

Ship to:					Send Results to:		S	end Invoic	e To:		Details:	IA.	20844
ELAB of Tournerly Eckenfeld 227 French L Nashville, TN Attn: Analyt (615) 345-111 (615) 846-542	ler Laborato anding 37228 ical Lah 5 (phon	ory) Driv oora			Name Mike Wath Company BC Address 7550 Lucern City & State Middle burs Phone 440 - 826 - 49 Fax 440 826 - 3		Cooler No Date Ship Shipped F Turnarou (Std. Turn	Page of Cooler No of Date Shipped					
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APPENDIX E-2 AREA 1 ATTAINMENT SAMPLING RESULTS

Dear Mike,

I have completed the statistical calculations on Area One and, as indicated below, the results indicate that Area One is in compliance with a 95% confidence UCL of 82 mg/kg. The calculations follow.

1. Shapiro-Wilk tests were carried out on the data to determine whether they are better represented by a normal distribution or by a log-normal distribution. The test statistics were interpreted by means of Table A-17, W. J. Conover, Practical Nonparametric Statistics, 3rd ed. The number of data points in the set is 10.

The value of W (the test statistic) for normal distribution is 0.9303, indicating that the probability that the data are normally distributed is between 0.10 and 0.50.

The value of W for log-normal distribution is 0.9105, indicating that the probability that the data are log-normally distributed is between 0.10 and 0.50.

One concludes that the data are best represented by a normal distribution. 95% UCLs were calculated for both distributions, however.

2. The arithmetic mean and standard deviation of the untransformed data set are

Mean = 37.40Standard deviation of the data set = 16.69Standard deviation of the population = 17.50

There follows calculation of the 95% UCL for the data assuming that they are normally distributed.

The standard deviation of the mean is given by $S_x = 17.50/(10^{1/2}) = 5.53$ The number of degrees of freedom, $df_1 = n - 1 = 9$. $\alpha = 0.05$ (95% confidence limit) for which t = 1.833 (D. J. Sheskin, Handbook of Parametric and Nonparametric Statistical

Procedures, Table A-2)

Then the 95% UCL is given by Mean + $tS_x = 37.40 + 1.833 \cdot 16.69/(10^{1/2}) = 47.07$ mg/kg.

The cleanup standard is that the 95% UCL must be <= 82 mg/kg; according to this approach the standard has been met.

3. The arithmetic mean and standard deviation of the (natural) log-transformed data are given by

Mean(log) =
$$3.5098$$

S_v = 0.5309

Other parameters needed are n (number of data points) = 10 $\alpha = 0.05$

Then H = 2.266 (Table A-12, R. O. Gilbert, Statistical Methods for Environmental Pollution Monitoring)

The 95% UCL is then given by

UCL(95) = exp[Mean(log) +
$$0.5S_y^2 + S_y H/(9)^{1/2}$$
]
= exp[$3.5098 + 0.5 1(0.5309)^2 + 0.5309 2.266/3$] = exp[4.0518]

so

$$UCL(95) = 57.50 \text{ mg/kg}$$

The UCL(95) cleanup standard is 82 mg/kg; according to this approach the cleanup standard has been met.

The data values used are 12, 30, 56, 59, 20, 51, 52, 33, 40, and 21 mg/kg



Client: PECO-Excelon #22684.003 Date Reported: 10/03/02

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ELAB SAMPLE NUMBER	•	SBLK1002BS1	0210014-01D	0210014-02D	0210014-03D 	0210014-041
DATE SAMPLED DATE RECEIVED DATE ANALYZED	· · .	NA NA 10/02/02	10/01/02 10/02/02 10/02/02	10/01/02 10/02/02 10/02/02	10/01/02 10/02/02 10/03/02	10/01/02 10/02/02 10/03/02
CLIENT SAMPLE DESCRIPTION		 M.BLANK 	 AT-1-027 	AT-1-058	AT-1-068	AT-1-075
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	10 X(1) CONC	10 X(1) CONC	20 X(1)	.25 X(1 CONC
Benzo(a)pyrene	330	< 330	12000 I	30000 D	56000 D	59000

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.



Client: PECO-Excelon #22684.003 Date Reported: 10/03/02

ELAB SAMPLE NUMBER		0210014-05D	0210014-06D l	0210014-070		
DATE SAMPLED DATE RECEIVED DATE ANALYZED		10/02/02	10/01/02 10/02/02 10/03/02	10/01/02 10/02/02 10/02/02	10/01/02 10/02/02 10/03/02	10/01/02 10/02/02 10/03/02
CLIENT SAMPLE DESCRIPTION		AT-1-116	AT-1-146	AT-1-157	AT-1-163 	AT-1-221
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	50 X(1)	50 X(1)	5.0 X(1) CONC	50 X(1)	25 X(:
Benzo(a)pyrene	330	180000 P	120000 D	23000 D	230000 D	20000

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.



Client: PECO-Excelon #22684.003 Date Reported: 10/03/02

ELAB SAMPLE NUMBER		0210014-10D	0210014-11D
DATE SAMPLED DATE RECEIVED DATE ANALYZED		10/01/02 10/02/02 10/03/02	10/01/02 10/02/02 10/03/02
CLIENT SAMPLE DESCRIPTION		AT-1-205	AT-1-Dup
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	100 X(1) CONC	50 X(1) CONC
Benzo(a)pyrene	330	130000 D	170000 D

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.

Elab

D. Rick Davis Vice President



ANALYTICAL REPORT TERMS AND QUALIFIERS

- **EQL**: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.
- B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.
- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.



Client: PECO-Excelon #22684.003 Date Reported: 10/08/02

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ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED...

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

Elab

D. Rick Davis Vice President



ANALYTICAL REPORT TERMS AND QUALIFIERS

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- When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
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- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

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(Signature) Pathons Car 10-7-02 3.09c	Received for La	aboratory by:		Date	Time	Temperature					Airbill	# <u>F</u>	<u>tv -x</u>	
Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers	(Signature)	$\mathcal{A} = \mathcal{A}$? /	10-7-	07:00 02	3.04					CAR #	1		
	Distribution: C	Original and vel	low copies			hipment to laboratory; Pin	k retained by	samplers			1,000			



Client: PECO-Excelon #22684.003

Date Reported: 10/11/02

ELAB SAMPLE NUMBER			SBLK1010BS1	0210085-01D 	0210085-02D	0210085-03D 	}
DATE SAMPLED DATE RECEIVED DATE ANALYZED			NA NA 10/10/02	10/09/02 10/11/02 10/11/02	10/09/02 10/11/02 10/11/02	10/09/02 10/11/02 10/11/02 	10/09/02 10/11/02 10/11/02
CLIENT SAMPLE DESCRIPTION			M.BLANK	AT12-019 	AT12-089	AT12-130 	AT12-049
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270		EQL	CONC	60 X(1) CONC	65 X(1) CONC	70 X(1)	65 X(1
Benzo(a)pyrene	1 (- - 67	< 67	190000 D	51000 E	52000 I	33000

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.



ELAB S	SAMPLE NUMBER		0210085-05D	0210085-06D
DATE	SAMPLED RECEIVED ANALYZED		10/09/02 10/11/02 10/11/02	10/09/02 10/11/02 10/11/02
CLIEN	T SAMPLE DESCRIPTION		AT12-164 	AT12-Dup
	NEUTRAL ORGANICS SEPA METHOD 8270	 EQL	70 X(1)	70 X(1)
B	enzo(a)pyrene	67	40000 D	62000 D

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

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Elab

D. Rick Davis Vice President



- **EQL:** The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.
- B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.
- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

Nº 20841 Details: Send Invoice To: Send Results to: Ship to: FLAB of Tennessee Page _____ of ___ Name Mike Watkins Company Brown & Caldwell Name Same (formerly Eckenfelder Laboratory) Cooler No. ____ of _ Company _____ Date Shipped 10/9/02 Shipped By Fedex 227 French Landing Drive Address ______ Nashville, TN 37228 City & State _____ Attn: Analytical Laboratory Turnaround 24hr Phone ______Purchase Order _____ Phone _____ (615) 345-1115 (phone) (Std. Turn unless noted otherwise / There Fax (615) 846-5426 (fax) may be a surcharge for RUSH-contact lab) Samplers (Signature)* Will Hair Project No./Name Exclon / PECO Attainment Sampling 22684,003 Lab Use Only ANALYSIS REQUIRED No. of Sample Location/Description Field Field Sample Lab Use Only Comp./ Date Containers/Pres. Bottles Cond. < pH/Temp Matrix Lab# Grab Sampled SVOC PAH 8270 Im- works: Soll Benzola) pyrene 10085-01 10/9/02 PM avab AT12-019 AT12-019 MS/MSD AT12-089 -02 ATI2-130 _0#3 AT12-049 AT12-164 -076 AT12-FieldBlank Lab Use Only Received By: (Signature) REMARKS Date/Time Sample Kit Prep'd by: (Signature) VOA Headspace Y N NA Field Filtered Y N NA Correct Containers Y N NA 9-4-02 *Signature required to ensure validity Unthorny Lum-Relinquished by: (Signature) Date/Time Received By: (Signature) YT, NA NA Discrepancies 10/9/02 Y N NA Cust. Seals intact 1900 Containers Intact Received By: (Signature) Date/Time Relinquished by: (Signature) Airbill# Temperature Date/Time Received for Laboratory by // (Signature) 💹

ELAB OF TENNESSEE C

N OF CUSTODY RECORD

CAR#

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers



Client: PECO Excelon #22684.003

Date Reported: 10/24/02

ELAB SAMPLE NUMBER		SBLK1018B1	0210157-03
DATE SAMPLED		 NA	10/16/02
DATE RECEIVED		NA.	10/17/02
DATE ANALYZED		10/22/02	10/22/02
 		M.BLANK	AT13-Field
CLIENT SAMPLE DESCRIPTION		l	Blank
		. ·	 -!
BASE NEUTRAL ORGANICS			
BY USEPA METHOD 8270	EQL	CONC	CONC
			 < 5.0
Benzo(a)pyrene	5.0	< 5.0	

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

Elab

D. Rick Davis Vice President

615-345-1115



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- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.



ELAB SAMPLE NUMBER	SBLK1018BS1	0210157-01D	0210157-02D
DATE SAMPLED DATE RECEIVED DATE ANALYZED	NA NA 10/18/02	10/16/02 10/17/02 10/21/02	10/16/02 10/17/02 10/21/02
CLIENT SAMPLE DESCRIPTION	M.BLANK	AT13-12	AT13-DUO
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270 EQL	CONC	5.0 X(1) CONC	5.0 X(1)
Benzo(a)pyrene 67	< 67	21000 E	19000 I

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.



- **EQL**: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.
- B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.
- D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".
- E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.
- J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.
- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

N OF CUSTODY RECORD **ELAB OF TENNESSEE C** Nº 20841 **Details: Send Invoice To:** Send Results to: Ship to: , 🕹 🖟 IDIO ATEM DOMESCORE Page ______ of ____ Name Mike Watkins Company Brown & Caldwell Name Same on mind eilede finden. 2006 and Desphilif Diggs 2016 ille IN 4528 Mins Andrythell eiledeith Cooler No. __/_ of _ Company _____ Date Shipped 19/16/02 Shipped By Fedex Address Address _______ Heights, OH City & State Turnaround Phone Phone ______Purchase Order _____ Phone _____ ris system to the common of the (Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab) PECO-Exelon Attainmen Project No./Name 22644.003 Samplers (Signature)* **ANALYSIS REQUIRED** No. of Field Field Sample Location/Description Sample Time Comp./ Date **Bottles** pH/Temp Cond. Matrix Grab Sampled PAH SVOC 8270 PM arab Benzo (a) pyrene 10/16/02 AT13-12 soi AT13-12 M5/MSD 501 5011 water ATI3-Field Blank

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REMARKS
*Signature required to ensure validity

Need results Monday 10/21/02

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Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

APPENDIX E-3 AREA 2 ATTAINMENT SAMPLING RESULTS

Dear Mike, Dale, and Will,

I have completed the statistical calculations on Area Two using the new data and, as indicated below, the results indicate that Area Two is well in compliance with a 95% confidence UCL of 20 mg/kg. The calculations follow.

1. Shapiro-Wilk tests were carried out on the data to determine whether they are better represented by a normal distribution or a log-normal distribution. The test statistics were interpreted by means of Table A-17, W.J. Conover, Practical Nonparametric Statistics, 3rd ed. The number of data points in the set is 21.

The value of W (the test statistic) for normal distribution of the data is 0.7023, indicating that the probability that the data are normally distributed is less than 0.01.

The value for W for log-normal distribution of the data is 0.9066, indicating that the probability that the data are log-normally distributed is about 0.05.

One concludes that the data are not well represented by either a normal or a log-normal distribution. The 95% UCL was calculated for both distributions, however, and was also estimated (more reliably in my opinion) by a simple nonparametric technique.

2. The arithmetic mean and standard deviation of the untransformed data set are Mean = 1.81 mg/kg

Standard deviation of the data set = 2.55Standard deviation of the population = 2.62

There follows calculation of the 95% UCL for the data assuming that they are normally distributed.

The standard deviation of the mean is given by $S_x = 2.62 / (21^{1/2}) = 0.572$ The number of degrees of freedom, df, = n - 1 = 20

 $\alpha = 0.05$ (95% confidence limit)

for which

t = 1.725 (D.J. Sheskin, Handbook of Parametric and Nonparametric Statistical Procedures, Table A-2)

Then the 95% UCL is given by Mean + $tS_x = 1.81 + 1.725 \times 0.572 = 2.80 \text{ mg/kg}$

The cleanup standard is that the 95%R UCL must be <= 20 mg/kg; according to this approach the standard has been met.

3. The arithmetic mean and standard deviation of the (natural) log-transformed data

are given by

Mean (log) = -0.6618 $S_y = 1.8054 / (21^{1/2}) = 0.3940$ Other parameters needed are n (number of data points)= 21 $\alpha = 0.05$ Then H = 1.905 (Table A-12, R.O. Gilbert, Statistical Methods for Environmental Pollution Monitoring)

The 95% UCL is then given by

UCL(95) =
$$\exp[\text{Mean}(\log) + 0.5\text{S}_y^2 + \text{S}_y\text{H}/(20^{1/2})]$$

= $\exp[-0.6618 + .5 \times 0.1552 + 1.905 \times .3940/(20^{1/2})] = 0.6594 \text{ mg/kg}$

SO

$$UCL(95) = 0.6594 \text{ mg/kg}$$

The UCL(95) cleanup standard is 20 mg/kg; therefore according to this approach the cleanup standard has been met.

4. The data values used are 0.037, 0.073, 0.074, 0.074, 0.074, 0.075, 0.080, 0.17, 0.20, 0.48, 0.49, 0.59, 0.92, 1.4, 2.5, 2.6, 3.0, 3.9, 4.1, 8.6, and 8.6 mg/kg. Since the data are neither normally distributed nor log-normally distributed, the use of the two approaches described above is of dubious validity; one would be better advised to use a simple nonparametric approach. For these 21 data values, the UCL(95) is 8.6 mg/kg, in compliance with the UCL(95) cleanup standard of 20 mg/kg.

With best regards,

Dave Wilson



ELAB SAMPLE NUMBER	-	SBLK1008BS1	SBLK1009BS	0210055-01 	0210055-02 	
DATE SAMPLED DATE RECEIVED DATE ANALYZED		NA NA 10/08/02	NA NA 10/09/02	10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/09/02
CLIENT SAMPLE DESCRIPTION		M.BLANK	M.BLANK	AT24-020 	AT26-020 	AT24-054
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EÖT	COMC	CONC	CONC	CONC	 CONC -
Benzo(a)pyrene	67	< 67	< . 67	200	3000	< _. 73

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.



ELAB SAMPLE NUMBER	0210055-04	0210055-05	0210055-06	0210055-07 	0210055-08
DATE SAMPLED DATE RECEIVED DATE ANALYZED	10/08/02	10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/09/02 	10/07/02 10/08/02 10/09/02
CLIENT SAMPLE DESCRIPTION	AT26-054	AT24-057 	AT26-057 -	AT24-095 . .	AT26-095
BASE NEUTRAL ORGANICS EY USEPA METHOD 8270 EQ	L CONC	 CONC	CONC	CONC	conc.
Benzo(a)pyrene 67	1400	< 74	37	74	< 80 ·-

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT)...

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ELAB SAMPLE NUMBER		0210055-09	0210055-10	0210055-11 	0210055-12D 	
DATE SAMPLED DATE RECEIVED DATE ANALYZED		10/07/02 10/08/02 10/10/02	10/07/02 10/08/02 10/09/02 	10/07/02 10/08/02 10/09/02 	10/07/02 10/08/02 10/09/02 	10/07/02 10/08/02 10/09/02
CLIENT SAMPLE DESCRIPTION		AT24-106	AT26-106	AT24-112 . .	AT26-112 	AT24-131
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	CONC	conc	40 X(1) CONC	 conc
Benzo(a)pyrene	67	920	480	< 75 	21000 D	< 74

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ELAB SAMPLE NUMBER	0210055-14D 0210055-15 0210055-16	5D 0210055-17 0210055-18D
DATE SAMPLED DATE RECEIVED DATE ANALYZED	10/08/02 10/08/02 10/08/02	10/07/02 10/07/02 10/08/02 10/08/02 10/09/02 10/10/02
CLIENT SAMPLE DESCRIPTION	1]
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	2.0 X(1)	1) 10 X(1) CONC CONC
Benzo(a)pyrene	< 170 D 490 < 2600	ם 590 2500 D

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ELAB SAMPLE NUMBER		0210055-19D	0210055-20D	0210055-21D
DATE SAMPLED DATE RECEIVED DATE ANALYZED		10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/09/02	10/07/02 10/08/02 10/10/02
- CLIENT SAMPLE DESCRIPTION		AT24-219 	AT26-219 	AT2-DUP
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	 EQL	50 X(1) CONC	50 X(1)	10 X(1) CONC
Benzo(a)pyrene	67	66000 D	27000 D	3900 D

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Elab

D. Rick Davis Vice President



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- J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.
- P: The associated numerical value is an estimated quantity. There is greater than a 25% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.



ELAB SAMPLE NUMBER		SBLK1010B1	0210055-22	0210085-07
DATE SAMPLED DATE RECEIVED DATE ANALYZED		NA NA 10/11/02	1 =0, -1, -1	10/09/02 10/11/02 10/11/02
CLIENT SAMPLE DESCRIPTION		M.BLANK	AT2-Field Blank 	AT12-Field Blank
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	 EQL	CONC	CONC	CONC
Benzo (a) pyrene	5.0	< 5.0	< 5.2	< 5.3

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

Elab

D. Rick Davis Vice President



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ELAB OF TENNESSEE C.....N OF CUSTODY RECORD

Ship to:				Send Results to:		Send Invoic	e To:		Details:	, ,	
ELAB of Grand Francisco (formerly Eckenfelt 227 French L Nashville, TN Attn: Analyt (615) 345-111 (615) 846-542	der Laboratory) Anding Dri N 37228 Sical Labora 15 (phone)			Name Mike Watking Company Brown & Cald Address City & State Middle burg F Phone Fax	Address City & State			Page of Cooler No of Date Shipped			
Project No./Nam	Existon	/PEC	0	22684.003		Samplers (Sig	nature)* 💋	Will Dan			
Lab Use Only Lab#	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	e Field	Field Cond.	ANALYSIS REQU	F	No. of Sottles	Lab Use Only Containers/Pres.
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ELAB OF TENNESSEE C....N OF CUSTODY RECORD

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Ship to:	Send Results to:		Send Invoice	To:		Details: Nº 26842				
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111	() () () () () () () () () ()	0' -				. CAR #				
Distribution: Original and yellow copies	accompany sample shipment to laboratory;	Pink retained by	samplers							

ELAB OF TENNESSEE C....IN OF CUSTODY RECORD

Send Invoice To:

Nº 26841

Details:

Ship to:				Send Results to:				Send Invoice To: De				tails:			
ELAB of tormerly Eckenfeld 227 French I Nashville, TN Attn: Analyt (615) 345-111 (615) 846-542	der Laboratory) Landing Driv N 37228 tical Labora 15 (phone)			Name Mike Working Company Brown Callwell Address City & State Phone Fax			Company C Address E City & State S Phone T Purchase Order G			Cooler No Date Shipp Shipped B Turnaroun (Std. Turn u	Page 3 of 3 Cooler No of Date Shipped / 0/7/02 Shipped By Turnaround 24hv (Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)				
Project No./Nam	ne Exelon	/PEC			22684.003 ple Location/Description	Sample	Samplers (Sig	nature)* /	ANALYSIS REQ	UIRED	No. of	Lab Use Only			
Lab Use Only Lab#	Date Sampled	Time	Comp./ Grab	. Saiii	me Location Description	Matrix		Cond.			Bottles	Containers/Pres.			
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Distribution:	Priginal and yell	low copies	accompany	sample s	hipment to laboratory; Pink	retained b	y samplers				•				



ELAB SAMPLE NUMBER	SBLK1121BS1	0211151-01D 			
DATE SAMPLED DATE RECEIVED DATE ANALYZED	NA NA 11/21/02	1	11/21/02	11/21/02	11/20/02 11/21/02 11/21/02
CLIENT SAMPLE DESCRIPTION	M.BLANK	AT262-001	AT242-027	AT262-027	AT22-Dup
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270 EQI	 , CONC	10 X(1)	10 X(1)	10 X(1) CONC	CONC
Benzo(a)pyrene 33) < 330	< 4100 E	8600 I	B600 . I	13000

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/KILOGRAM DRY UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/DRY WEIGHT/SAMPLE WEIGHT).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED. DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.

Elab

D. Rick Davis Vice President



ELAB SAMPLE NUMBER	SAMPLE NUMBER							
DATE SAMPLED DATE RECEIVED DATE ANALYZED			NA.	11/20/02 11/21/02 11/22/02				
CLIENT SAMPLE DESCRIPTION			M.BLANK	AT22-Field Blank				
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	 	EQL	CONC	CONC				
Benzo(a)pyrene		5.0	< 5.0	< 5.3				
	DATE SAMPLED DATE RECEIVED DATE ANALYZED CLIENT SAMPLE DESCRIPTION BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	DATE SAMPLED DATE RECEIVED DATE ANALYZED CLIENT SAMPLE DESCRIPTION BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	DATE SAMPLED DATE RECEIVED DATE ANALYZED CLIENT SAMPLE DESCRIPTION BASE NEUTRAL ORGANICS BY USEPA METHOD 8270 EQL	DATE SAMPLED NA DATE RECEIVED NA DATE ANALYZED 11/22/02 CLIENT SAMPLE DESCRIPTION BASE NEUTRAL ORGANICS BY USEPA METHOD 8270 EQL CONC				

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ELAB OF TENNESSEE C......N OF CUSTODY RECORD

Send Results to:

Send Invoice To:

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Lab Use Only Eab#	Date Sampled	Time	Comp./ Grab	Samp	ele Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQU		No. of Bottles	Containers/Presi	
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